Instructional Guide
California Preschool Learning Foundations, Volume 3

Supporting faculty in the California Community College and California State University systems with CDE early childhood publications and initiatives

California Department of Education/Early Education and Support Division (formerly Child Development Division)
WestEd Center for Child and Family Studies
A Foreword from the Co-Director of the  
Center for Child and Family Studies, WestEd  

Seeking to forge a strong link between the California Department of Education’s (CDE) early care and education quality improvement activities and higher education in California, the Faculty Initiative Project (FIP) has been supporting the efforts of faculty to infuse information from the CDE’s activities into their course work. The instructional guides, which are being created collaboratively with higher education faculty, are an essential component of the Faculty Initiative Project’s work. This document, the CDE/ECE Faculty Initiative Project Instructional Guide for the California Preschool Learning Foundations, Volume 3, is the latest installment of these practical, user-friendly resources.

The preschool learning foundations are at the center of the CDE’s preschool learning and development system. Created by leading experts, the foundations are based on research and evidence-based information. Volume 3 provides descriptions of young children’s learning and development at around 48 months of age and at around 60 months of age in the domains of history-social science and science. Important areas of learning and development during the preschool years, these domains complement others such as language and literacy and mathematics. The history-social science and science domains comprise key components of the essential domain of cognition and general knowledge as designated by the U.S. Department of Education and the U.S. Department of Health and Human Services. In addition, the preschool learning foundations in the history-social science domain work hand in hand with those in the social-emotional domain. The foundations in the science domain relate directly to the Next Generation Science Standards (NGSS) for California Public Schools, Kindergarten through Grade Twelve, which were recently adopted by the State Board of Education (SBE).

Higher education faculty will easily recognize the content of the learning foundations, for it focuses on many concepts they already teach. In the history-social science domain, the foundations address, for example, the development of group participation skills, responsible conduct, a sense of fairness and respect for other people, and conflict resolution. The science foundations include children’s developing to engage in observation and investigation to explore questions about objects and events in their environment. In general, the foundations identify key areas of preschool learning and development that teachers and programs intentionally support. The CDE’s curriculum framework and its Desired Results Developmental Profile (DRDP) assessment instrument will be aligned to the foundations. Through infusing the foundations into their course work, faculty will be able to introduce resources and tools that are intended to facilitate their students’ work as early childhood educators.
This instructional guide is designed to meet the needs of faculty in a wide variety of situations. Following a broadly used teaching and learning sequence, it offers open-ended activities that can be used in their current form or adapted. In a nutshell, the instructional guide provides an easy-to-use, ready-to-go set of comprehensive resources, including in-class activities and handouts, that relate to all instructional levels, from an introductory class to master’s level graduate study.

My colleagues and I at WestEd greatly appreciate having the opportunity to partner with the Faculty Initiative Project advisors and consultants from higher education. We are excited about this collaborative effort to create resources that are designed specifically for faculty. It is our hope that this instructional guide will contribute to the efforts of our colleagues in higher education to foster a broad and deep understanding of early learning and development in their students—tomorrow’s early childhood educators. Together with the CDE, we look forward to continuing our work with higher education to ensure that all young children have teachers who possess the knowledge, skills, and dispositions necessary to provide high quality early childhood education.

Peter L. Mangione
Co-Director, Center for Child and Family Studies
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Acknowledgments

The creation of this instructional guide would not have been possible without the expertise and contributions of the many talented people who were involved. We extend our sincere gratitude to this group of dedicated professionals. They included the (1) Faculty Initiative Project Core Consultants, (2) The Faculty Initiative Project Advisory Group, (3) Staff from the California Department of Education/Education and Support Division (formerly Child Development Division), and (4) project staff from WestEd's Center for Child and Family Studies.

Peter Mangione, Co-Director of the Center for Child and Family Studies, provided invaluable academic and practical perspectives affecting all aspects of this instructional guide.

The Faculty Initiative Project, with Caroline Pietrangelo Owens as Project Director, works with a group of core consultants.

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Special thanks go to Christine Moscou, Project Assistant, for her dedication and contributions to
this Instructional Guide.

Special thanks go to Katie Monahan, Senior Program Associate, Center for Child and Family
Studies.

Special thanks go to Carolyn Shaw for her contributions to the preliminary formatting of the
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Introduction to The Faculty Initiative Project:
Supporting Faculty

Responding to early childhood priorities in California, the Early Education and Support Division (formerly Child Development Division) of the California Department of Education has developed initiatives and published materials to support practitioners, young children, and families involved in early childhood education programs. The Faculty Initiative Project has been charged with supporting faculty in institutions of higher education across the state as they infuse these initiatives into their course work.

The purpose of the Faculty Initiative Project is to align and integrate essential content and competencies of key California Department of Education/Early Education and Support Division materials and initiatives with core early childhood education curriculum of the California Community College and the California State University systems. Faculty will have information and resources to integrate content of the California Department of Education initiatives and publications into unit-bearing course work required for the attainment of college certificates, permits granted by the Commission for Teacher Credentialing, and campus graduation requirements.

About the Instructional Guides:
Learning Experiences and Resources for Higher Education Faculty

To support faculty as they prepare the early care and education workforce in California to successfully meet the challenges and requirements of implementing recent California Department of Education/Early Education and Support Division (formerly CDD) initiatives and publications, the Faculty Initiative Project has been developing instructional guides to accompany several of these initiatives and publications. These instructional guides are intended to connect professional development in systems of higher education with the content of the California Department of Education/Early Education and Support Division initiatives and the following publications:

- *California Preschool Learning Foundations, Volume 1*
- *California Preschool Learning Foundations, Volume 2*
- *California Preschool Learning Foundations, Volume 3*
Instructional guides have been developed for these publications:

- *California Preschool Learning Foundations, Volume 1*
- *California Preschool Learning Foundations, Volume 2*
- *California Preschool Curriculum Framework, Volume 1*
- *California Preschool Curriculum Framework, Volume 2*

These instructional guides are available on the Faculty Initiative Project Web site, [http://www.wested.org/facultyinitiative](http://www.wested.org/facultyinitiative). The instructional guide for the *California Preschool Learning Foundations, Volume 3* will be available on the Faculty Initiative Project Web site by the fall of 2014.

The instructional guides are developed to

- support the greatest possible utility across the complexity of California’s systems of higher education;
- maintain fidelity to the content of the Early Education and Support Division’s initiatives (formerly CDD);
- adhere to commonly accepted principles of adult learning;
- provide maximum flexibility for faculty;
- support faculty as decision makers; and
- allow faculty to select curricular content that suits their particular students, courses, and program needs.

The instructional guides are intended to help faculty acquaint college students who are preparing for work in preschool settings with California Department of Education/Early Education and Support Division publications. In the instructional guides, the word “students” refers to college students and not children in the preschool setting.
Purpose of the *Instructional Guide for the California Preschool Learning Foundations, Volume 3: Deepening Students’ Understanding of the Content of the Foundations*

The purpose of the Faculty Initiative Project’s *Instructional Guide for the California Preschool Learning Foundations, Volume 3* is to support faculty in deepening their students’ understanding of the foundations contained in the *California Preschool Learning Foundations, Volume 3*. This instructional guide provides suggested learning experiences and resources for use by faculty in community college and university courses in California. The learning experiences in the instructional guide are intended to promote college students’ development of knowledge and skills as well as to support the development of habits and skills for reflection.

“The foundations describe competencies—knowledge and skills—that most children can be expected to exhibit in a high-quality program as they complete their first or second year of preschool (*California Preschool Learning Foundations, Volume 3*, p. xi).” They provide research-based identification of the skills and knowledge children need to be successful in school and in life. The foundations themselves are neither curriculum nor assessment but can serve as guides to help teachers develop curriculum and assessment practices.


The *California Preschool Learning Foundations, Volume 3* addresses two domains of development and learning: history–social science and science. Each domain has a specific organizational format, but domains are generally organized as strands, substrands, foundations, and examples. The instructional guide also addresses each of the two domains. A map of each specific domain’s organizational format is provided with each domain in this instructional guide.

**Flexibility for Faculty: Choose, Adapt, Tailor**

The material in the instructional guide is intended to provide great flexibility to faculty. The following options are examples of ways faculty can use the instructional guide:
• Select relevant content and/or learning experiences based on course content and/or student learning outcomes

• Reorganize the active learning segments or select sections of the materials to fit their students and priorities

• Expand or minimize content

• Tailor content to their local needs (e.g., prevalent home language varies from region to region in California)

Learning experiences, active learning, and strategies are described broadly enough so that faculty can choose, adapt, tailor, and shape these to their own preferred teaching styles, their students, and/or their program needs. This flexibility is offered in the hope of providing maximum utility of the initiatives and publications that the California Department of Education/Early Education and Support Division is preparing for the early care and education community in California.

Because Volume 3 of the foundations completes the publication of California’s early learning and development foundations, there are a number of learning experiences that refer back to domains of learning and development that are found in previous volumes. Wherever possible, relevant page numbers as well as possible connections to the domains in California Preschool Learning Foundations, Volume 1 and California Preschool Learning Foundations, Volume 2 are provided.

When the Preschool English Learners: Principles and Practices to Promote Language, Literacy, and Learning—A Resource Guide (Second Edition) and the first volumes of the California Preschool Learning Foundations and the California Preschool Curriculum Framework were published, the terms “preschool English learners” and “English-language development” were used. Please note that this instructional guide is using the term “young dual language learners” instead of “preschool English learners” or “young English language learners” in order to be consistent with the current policy of the California Department of Education/Early Education and Support Division. However, the domain in the foundations and curriculum frameworks is still referred to as the “English-language development” domain.


Student Learning Outcomes

To support faculty in decisions regarding how and where they can best use the California Preschool Learning Foundations, Volume 3 in their course work or across their program, the Student Learning Outcomes (SLOs) developed by the Curriculum Alignment Project (CAP) (http://www.childdevelopment.org/cs/cdtc/print/htdocs/services_cap.htm) for the eight core lower division early childhood courses have been mapped onto each learning
experience in this instructional guide for consideration. At the beginning of each learning experience, the Preview of the Learning Experience will provide the list of courses that have been mapped onto the specific learning experience.

The Curriculum Alignment Project's SLOs, objectives, and examples of course content and topics indicated for this instructional guide for the *California Preschool Learning Foundations, Volume 3* can be found in Appendix A of this instructional guide. Refer to Appendix A of this instructional guide for detailed and specific student learning outcomes, objectives, and examples of course content and topics. Refer to the Student Learning Outcomes Index for an overview of this instructional guide mapping listed by domain. The location of the SLO Index is listed in the Table of Contents for this instructional guide.

These SLOs are organized by the CAP core lower division eight early childhood courses. This is not an exhaustive list, and faculty might find ways to use the learning experiences to address SLOs in ways other than what has been indexed. Working through these selected learning experiences does not guarantee the achievement of any student learning outcome or objective; it is understood that students achieve student outcomes through repeated engagement with information and experiences that build competence.

To assist faculty in using these SLOs as supports for decision making, the instructional guide learning experiences are indexed first by *California Preschool Learning Foundations, Volume 3* domains and then by CAP courses and SLOs so that faculty can select what is most relevant to their particular needs. Student learning outcomes are matched to specific learning experiences in the instructional guide that will support attainment of that outcome. Not all student learning outcomes map onto the specific content of the instructional guide.

Refer to the Student Learning Outcomes Index for an overview of this instructional guide mapping listed by domain. Refer to Appendix A of this instructional guide for more detailed and specific student learning outcomes, objectives, and examples of course content and topics.

**Instructional Methodologies**

Each learning experience is written to include a variety of instructional methodologies. This is intended to provide varied learning experiences for students as they encounter the foundations. It also provides another variable for faculty to use in deciding which learning experiences will best suit the needs of their students and programs. In this
instructional guide, these methodologies are identified for each learning experience and are indexed so that faculty can get an overview of which methodologies are used across all the learning experiences. The location of the Instructional Methodologies Index is listed in the Table of Contents for this instructional guide. This index in this instructional guide also includes, for the first time, working definitions of each of the instructional methodologies used across the learning experiences.

**California Early Childhood Educator Competency Areas**
The Faculty Initiative Project will undertake a comprehensive process in the future to map the content of the instructional guides to the California Early Childhood Educator Competencies. In this instructional guide, competency areas are listed for each learning experience that could be addressed in the learning experience. This list can be found at the beginning of each learning experience on the page(s) labeled Preview of Learning Experience 1 and so forth. These are preliminary connections and are not meant to be exhaustive. Faculty will find more connections in their courses to both competency areas and competency contexts as they become more familiar with them. They are listed in this instructional guide as an initial exploration of how particular competency areas might be addressed through these learning experiences. There is no index for them in this instructional guide due to the preliminary nature of the mapping.

**Learning Experiences and Instructional Themes**
The instructional guide is composed of 25 learning experiences that can be used to support students in learning about the foundations in the *California Preschool Learning Foundations, Volume 3*. They are presented by domain, and each learning experience is designed to address one of six instructional themes:

- Helping students connect to their own experiences with the domain
- Learning the content of the domain foundations
- Understanding the rationale and research base of the domain
- Connecting the domain to children's families and cultural communities
- Exploring the foundations in the early care and education setting
- Connecting the foundations across domains

These themes are not explicitly identified within each learning experience. Because of the holistic nature of development for children and for students, many of the learning experiences cross themes. Nevertheless, to support faculty decision-making, the dominant theme for each learning experience is identified in the Organizational Chart for the Instructional Guide for the *California Preschool Learning Foundations, Volume 3*. The location of this Organizational Chart can be found in the Table of Contents of this instructional guide.

Preview Page(s): Overview
Each learning experience is introduced with a preview page(s) containing information that will help faculty get an overview of that learning experience. Each of these Preview of Learning Experience page(s) contains

- a focus statement that describes what students will experience in the learning experience,
- a list of the Curriculum Alignment Project (CAP) courses for which CAP student learning outcomes have been mapped onto the learning experience,
- a list of the instructional methodologies used in the learning experience, and
- a list of possible California Early Childhood Educator Competency Areas to consider that could be addressed in this learning experience.

Before You Start: Information For Preparation
Following the Preview of Learning Experience page(s), each learning experience begins with a section titled Before You Start. This section can be found on the first page of every learning experience following the preview page(s) and provides an overview to help faculty decide if this learning experience fits into their purpose and goals for a class session. In this section there might also be prior readings, background information, connections to other Early Education and Support Division (formerly CDD) publications, or logistical details to consider before engaging with students.

Instructional Components

Information Delivery
This component is designed to introduce specific content to students in the class setting. The delivery of information may be brief or long and may be composed of a single topic or several related topics. Information Delivery might include these elements:

- Lecture content
- Readings or video
- Direct engagement with content in an active way

Active Learning
This component describes learning sessions that can be conducted within the time frame of a single class or over several class sessions by individuals, pairs, small groups, or the whole class. These learning sessions are intended to be active,
thoughtful, challenging, and relevant to the content. Active learning is further divided into these segments:

- Getting it started
- Keeping it going
- Taking it further
- Another approach/way

Not every learning experience contains all of these segments of active learning. They are included when they are relevant and enhance learning or instructional possibilities.

**Reflection**
Questions for reflection are offered that will challenge students to reflect on their experiences with the content and process of the learning experience. These questions usually ask students to reflect on their experiences and then come to some action or make a decision based on those reflections. This is intended to establish habits of reflection in students that can be carried over to their work with colleagues and young children and families.

**Deeper Understanding**
Topics for additional study or research by students are included at the end of some learning experiences. Again, these are included as they are relevant and will enhance or extend learning. They are intended to take students into deeper engagement with the concepts, issues, and/or research base that are related to the content of the domain.

**Online Options**
Suggestions are made for ways to implement or adapt active learning to student work that is done online. This might be in online courses or as online assignments for face-to-face courses. These are not meant to be exhaustive but to indicate the kinds of adaptations that can be made to support faculty and students who work online.

**PowerPoint Presentations**
Throughout the instructional guide, you will sometimes see this symbol in the left margin of the instructional components. This symbol indicates that there are PowerPoint slides that correspond to a particular part of the learning experience.
Working Across the Nine Domains

Because Volume 3 of the California preschool learning foundations completes the publication of foundations for all nine domains of learning in the California early learning and development system, it presents some opportunities to work across all of the nine domains contained in Volumes 1, 2, and 3 of the California preschool learning foundations. There are many ways to do this, but this instructional guide, combined with previous instructional guides, provides some explicit ways to address all nine domains.

First, in every domain across the guides, there are several consistent learning experiences (called activities in the instructional guide for California Preschool Learning Foundations, Volume 1). The following three learning experiences (activities) can be found for each of the nine domains:

- Supporting students in learning the content of the domain by completing a puzzle of the domain components
- Supporting students in understanding that examples are not criteria and that children might demonstrate the foundations in a number of ways by asking students to develop example banks
- Supporting students in understanding how the foundations help prepare children for success in later schooling by linking the foundations to California kindergarten content standards

Because these learning experiences are available in each domain, they can be used in combination across selected multiple domains or all nine domains.

Additionally, there are specific learning experiences in each domain in this instructional guide that can be used, individually or in combination, to support students in exploring some ways in which the domains are connected. This is intended to support an understanding that learning in young children is integrated and multifaceted. Rather than attempting to connect each domain to every other domain, learning experiences were developed to highlight selected connections.

The following table illustrates what those learning experiences are and which domains in other volumes are specifically explored in connection with the two domains in Volume 3.
Cross-Domain Coverage in the *Instructional Guide for the California Preschool Learning Foundations, Volume 3*

<table>
<thead>
<tr>
<th>Learning Experience in the History–Social Science Domain</th>
<th>Learning Experience in the Science Domain</th>
<th>Domains from Volume 1 or Volume 2 That Are Explored in This Learning Experience</th>
<th>Methodology Used to Explore Across These Domains</th>
</tr>
</thead>
<tbody>
<tr>
<td>History–Social Science Learning Experience 11</td>
<td></td>
<td>• Social-Emotional Development • English-language Development</td>
<td>Students are asked to chart conceptual or behavioral relationships.</td>
</tr>
<tr>
<td>History–Social Science Learning Experience 12</td>
<td></td>
<td>• Visual and Performing Arts</td>
<td>Students are asked to demonstrate relationships by using the four strands of the visual and performing arts domain.</td>
</tr>
<tr>
<td>Science Learning Experience 11</td>
<td></td>
<td>• Mathematics</td>
<td>Students are asked to search for common vocabulary.</td>
</tr>
<tr>
<td>Part 1 of this learning experience focuses on the three strands—Physical Sciences, Life Sciences, and Earth Sciences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Science Learning Experience 11</td>
<td></td>
<td>• Language and Literacy</td>
<td>Students are asked to search for common and mutually supportive skills and behaviors.</td>
</tr>
<tr>
<td>Part 2 of this learning experience focuses on the strand of Scientific Inquiry</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Science Learning Experience 12</td>
<td></td>
<td>• Physical Development • Health</td>
<td>Students develop a visual representation of connections of selected strands.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Additional Thoughts**

The learning experiences in this guide are written to be adapted and, therefore, are not intended to be used as scripts. Each learning experience provides a framework within which faculty will need to plan and reflect on what will work best with their particular students.

The California Department of Education has published a resource guide titled *Preschool English Learners: Principles and Practices to Promote Language, Literacy, and Learning—A Resource Guide (Second Edition)*. This guide provides foundational information regarding language and literacy development in all children, with special attention to English-language development in children for whom English is not their home language. Many faculty have found this publication to be helpful in supporting their own students who are learning about the foundations and the language of early care and education. The Faculty Initiative Project has produced an instructional guide for this publication, the *Instructional Guide for the Preschool English Learners: Principles and Practices to Promote Language, Literacy, and Learning—A Resource Guide (Second Edition)*, which is available online at [www.wested.org/facultyinitiative/pelguide.html](http://www.wested.org/facultyinitiative/pelguide.html).
### Instructional Themes and Relevant California Early Childhood Educator Competency Areas

#### History–Social Science

<table>
<thead>
<tr>
<th>Self and Society</th>
<th>Becoming a Preschool Community Member (Citizen)</th>
<th>Sense of Time (History)</th>
<th>Sense of Place (Geography and Ecology)</th>
<th>Marketplace (Economics)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Experiences 1 and 2</td>
<td>Focus statement</td>
<td>SLOs</td>
<td>Instructional Methodologies</td>
<td>ECE Competency Areas</td>
</tr>
</tbody>
</table>

#### Science

<table>
<thead>
<tr>
<th>Scientific Inquiry</th>
<th>Physical Sciences</th>
<th>Life Sciences</th>
<th>Earth Sciences</th>
</tr>
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<tbody>
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<td>Learning Experiences 1 and 2</td>
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<td>Instructional Methodologies</td>
</tr>
</tbody>
</table>

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### Instructional Theme: Connect to Self and Experience

- Child Development and Learning
- Cultural, Diversity, and Equity
- Family and Community Engagement
- Observation, Screening, Assessment, and Documentation
- Learning Environments and Curriculum
- Professionalism

### Instructional Theme: Domain Content

- Child Development and Learning
- Cultural, Diversity, and Equity
- Relationships, Interactions, and Guidance
- Family and Community Engagement
- Dual-Language Development
- Special Needs and Inclusion
- Learning Environments and Curriculum
- Professionalism

### Instructional Theme: Research Base/Rationale

- Child Development and Learning
- Cultural, Diversity, and Equity
- Relationships, Interactions, and Guidance
- Family and Community Engagement
- Observation, Screening, Assessment, and Documentation
- Learning Environments and Curriculum
- Health, Safety, and Nutrition
- Leadership in Early Childhood Education
- Professionalism
- Administration and Supervision
### Instructional Themes and Relevant California Early Childhood Educator Competency Areas

#### Instructional Theme: Family and Cultural Context

California ECE competency areas to consider:
- Child Development and Learning
- Cultural, Diversity, and Equity
- Relationships, Interactions, and Guidance
- Family and Community Engagement
- Observation, Screening, Assessment, and Documentation
- Learning Environments and Curriculum
- Health, Safety, and Nutrition
- Leadership in Early Childhood Education
- Professionalism

<table>
<thead>
<tr>
<th>Instructional Theme</th>
<th>History–Social Science</th>
<th>Science</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Self and Society</td>
<td>Becoming a Preschool Community Member (Civics)</td>
</tr>
<tr>
<td>Learning Experiences 7 and 8</td>
<td>Focus statement</td>
<td>SLOs</td>
</tr>
</tbody>
</table>

#### Instructional Theme: Domain in ECE Settings

California ECE competency areas to consider:
- Child Development and Learning
- Cultural, Diversity, and Equity
- Family and Community Engagement
- Observation, Screening, Assessment, and Documentation
- Learning Environments and Curriculum
- Leadership in Early Childhood Education
- Professionalism
- Administration and Supervision

Learning Experiences 9 and 10
- Focus statement
- SLOs
- Instructional Methodologies
- ECE Competency Areas
- Before you start
- Information delivery
- Active learning
- Reflection
- Deeper understanding

#### Instructional Theme: Relating Across Domains

California ECE competency areas to consider:
- Child Development and Learning
- Relationships, Interactions, and Guidance
- Dual-Language Development
- Special Needs and Inclusion
- Learning Environments and Curriculum
- Health, Safety, and Nutrition
- Professionalism

Learning Experiences 11 and 12
- Focus statement
- SLOs
- Instructional Methodologies
- ECE Competency Areas
- Before you start
- Information delivery
- Active learning
- Reflection
- Deeper understanding
CDE/ECE Faculty Initiative Project Instructional Guide

California Preschool Learning Foundations,
Volume 3 (2012)

History–Social Science Domain
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PowerPoint Presentations

- PowerPoint presentations are available for each domain by learning experience.
This instructional guide for the history–social science domain is organized to support faculty in addressing the content and research base of the history–social science foundations. Accordingly, the instructional guide for these foundations is designed to support faculty as they deepen students’ understanding of the structure, content, and research base of the foundations. In the instructional guides, the word “students” refers to college students and not children in the preschool setting.

The guide is not intended to support faculty in helping students learn to assess children’s learning and development related to the history–social science foundations. It is also not intended to support faculty in helping students learn how to design curriculum related to children’s development of history–social science knowledge and skills. Curriculum development is addressed in the instructional guides for the *California Preschool Curriculum Framework, Volume 1* and *California Preschool Curriculum Framework, Volume 2*.

Instructional guides have been developed for these publications:

- *California Preschool Learning Foundations, Volume 1*
- *California Preschool Learning Foundations, Volume 2*
- *California Preschool Curriculum Framework, Volume 1*
- *California Preschool Curriculum Framework, Volume 2*

These instructional guides are available on the Faculty Initiative Project Web site, [http://www.wested.org/facultyinitiative](http://www.wested.org/facultyinitiative).

The history–social science domain of the *California Preschool Learning Foundations, Volume 3* consists of five strands, each with one or more substrands:

**Self and Society**
- 1.0 Culture and Diversity
- 2.0 Relationships
- 3.0 Social Roles and Occupations
Becoming a Preschool Community Member (Civics)
• 1.0 Skills for Democratic Participation
• 2.0 Responsible Conduct
• 3.0 Fairness and Respect for Other People
• 4.0 Conflict Resolution

Sense of Time (History)
• 1.0 Understanding Past Events
• 2.0 Anticipating and Planning Future Events
• 3.0 Personal History
• 4.0 Historical Changes in People and the World

Sense of Place (Geography and Ecology)
• 1.0 Navigating Familiar Locations
• 2.0 Caring for the Natural World
• 3.0 Understanding the Physical World Through Drawings and Maps

Marketplace (Economics)
• 1.0 Exchange

The learning experiences in this instructional guide allow faculty to address all the strands in an integrated approach or to focus on individual strands.

Because Volume 3 of the foundations completes the publication of California’s early learning and development foundations, there are a number of learning experiences that refer back to domains of learning and development that are found in previous volumes. Wherever possible, relevant page numbers as well as possible connections to the domains in California Preschool Learning Foundations, Volume 1 and California Preschool Learning Foundations, Volume 2 are provided.

When the Preschool English Learners: Principles and Practices to Promote Language, Literacy, and Learning—A Resource Guide (Second Edition) and the first volumes of the California Preschool Learning Foundations and the California Preschool Curriculum Framework were published, the terms “preschool English learners” and “English-language development” were used. Please note that this instructional guide is using the term “young dual language learners" instead of “preschool English learners” or “young English language learners” in order to be consistent with the current policy of the California Department of Education/Early Education and Support Division (formerly Child Development Division). However, the domain in the foundations and curriculum frameworks is still referred to as the “English-language development” domain.
Features of the Instructional Guide for the *California Preschool Learning Foundations, Volume 3*

**Student Learning Outcomes**

To support faculty in decisions regarding how and where they can best use the *California Preschool Learning Foundations, Volume 3* in their course work or across their program, the Student Learning Outcomes (SLOs) developed by the Curriculum Alignment Project (CAP) ([http://www.childdevelopment.org/cs/cdtc/print/htdocs/services_cap.htm](http://www.childdevelopment.org/cs/cdtc/print/htdocs/services_cap.htm)) for the eight core lower division early childhood courses have been mapped onto each learning experience in this instructional guide for consideration. At the beginning of each learning experience, the Preview of the Learning Experience will provide the list of courses that have been mapped onto the specific learning experience.

The Curriculum Alignment Project's SLOs, objectives, and examples of course content and topics indicated for this instructional guide for the *California Preschool Learning Foundations, Volume 3* can be found in Appendix A of this instructional guide. Refer to Appendix A of this instructional guide for detailed and specific student learning outcomes, objectives, and examples of course content and topics. Refer to the Student Learning Outcomes Index for an overview of this instructional guide mapping listed by domain. The location of the SLO Index is listed in the Table of Contents for this instructional guide.

These SLOs are organized by the CAP core lower division early childhood courses. This is not an exhaustive list, and faculty might find ways to use the learning experiences to address SLOs in ways other than what has been indexed. Working through these selected learning experiences does not guarantee the achievement of any student learning outcome or objective; it is understood that students achieve student outcomes through repeated engagement with information and experiences that build competence.

To assist faculty in using these SLOs as supports for decision making, the instructional guide learning experiences are indexed first by *California Preschool Learning Foundations, Volume 3* domains and then by CAP courses and SLOs so that faculty can select what is most relevant to their particular needs. Student learning outcomes are matched to specific learning experiences in the instructional guide that...
will support attainment of that outcome. Not all student learning outcomes map onto the specific content of the instructional guide.

Refer to the Student Learning Outcomes Index for an overview of this instructional guide mapping listed by domain. Refer to Appendix A of this instructional guide for more detailed and specific student learning outcomes, objectives, and examples of course content and topics.

**Instructional Methodologies**

Each learning experience is written to include a variety of instructional methodologies. This is intended to provide varied learning experiences for students as they encounter the foundations. It also provides another variable for faculty to use in deciding which learning experiences will best suit the needs of their students and programs. In this instructional guide, these methodologies are identified for each learning experience and are indexed so that faculty can get an overview of which methodologies are used across all the learning experiences. The location of the Instructional Methodologies Index is listed in the Table of Contents for this instructional guide. This index in this instructional guide also includes, for the first time, working definitions of each of the instructional methodologies used across the learning experiences.

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Questions for reflection are offered that will challenge students to reflect on their experiences with the content and process of the learning experience. These questions usually ask students to reflect on their experiences and then come to some action or make a decision based on those reflections. This is intended to establish habits of reflection in students that can be carried over to their work with colleagues and young children and families.

Deeper Understanding
Topics for additional study or research by students are included at the end of some learning experiences. Again, these are included as they are relevant and will enhance or extend learning. They are intended to take students into deeper engagement with the concepts, issues, and/or research base that are related to the content of the domain.

Online Options
Suggestions are made for ways to implement or adapt active learning to student work that is done online. This might be in online courses or as online assignments for face-to-
face courses. These are not meant to be exhaustive but to indicate the kinds of adaptations that can be made to support faculty and students who work online.

**PowerPoint Presentations**

Throughout the instructional guide, you will sometimes see this symbol in the left margin of the instructional components. This symbol indicates that there are PowerPoint slides that correspond to a particular part of the learning experience.

**Additional Thoughts**

The learning experiences in this guide are written to be adapted and, therefore, are not intended to be used as scripts. Each learning experience provides a framework within which faculty will need to plan and reflect on what will work best with their particular students.

The California Department of Education has published a resource guide titled *Preschool English Learners: Principles and Practices to Promote Language, Literacy, and Learning—A Resource Guide (Second Edition)*. This guide provides foundational information regarding language and literacy development in all children, with special attention to English-language development in children for whom English is not their home language. Many faculty have found this publication to be helpful in supporting their own students who are learning about the foundations and the language of early care and education. The Faculty Initiative Project has produced an instructional guide for this publication, the *Instructional Guide for the Preschool English Learners: Principles and Practices to Promote Language, Literacy, and Learning—A Resource Guide (Second Edition)*, which is available online at [www.wested.org/facultyinitiative/pelguide.html](http://www.wested.org/facultyinitiative/pelguide.html).
# Map of the Foundations

## History–Social Science

### Self and Society

<table>
<thead>
<tr>
<th>Domain</th>
<th>Strand</th>
<th>Age</th>
<th>Foundation</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>History–Social Science</td>
<td>Self and Society</td>
<td>At around 48 months of age</td>
<td>Culture and Diversity</td>
<td>Exhibit developing cultural, ethnic, and racial identity and understand relevant language and cultural practices. Display curiosity about diversity in human characteristics and practices, but prefer those of their own group.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>At around 60 months of age</td>
<td></td>
<td>Manifest stronger cultural, ethnic, and racial identity and greater familiarity with relevant language, traditions, and other practices. Show more interest in human diversity, but strongly favor characteristics of their own group.</td>
</tr>
</tbody>
</table>

**Examples**

- When parent leaves room during drop-off, child seeks a teacher assistant who speaks the child’s home language.
- Tells a Chinese American friend, “I can speak your language. Ni hao (Hello)!”
- Shares with teacher, after a holiday weekend, “I helped make the hanukkah.”
- Describes to a teacher the special foods her family ate at last night’s Passover Seder.
- Wants to touch Mischka’s wheelchair.
- Points to a child’s sushi and asks, “What is that?” Shows interest in the response, but does not want to try it.
- Points to a photo on the group’s Family Board and says, “Jasmine looks like me.”
- While playing play dough, child tells a friend, “My sisue makes tefillah.”
- Proudly shares, “My mom can speak three languages: Cantonese, Vietnamese, and English!”
- Learns and uses some simple words in a different language that is used by other children in the group.
- Asks a new teacher, “Why do you always wear a scarf on your head?” and shows interest in the teacher’s explanation.
- Tells another girl, “You can’t play if you have short hair. Only boys can have short hair.”
- While discussing their families, a child shares, “I’m half Mexican and half Salvadoran.” Another child adds, “I’m half Japanese and half Jewish.”
- During a circle-time discussion of the holidays that families celebrate, suggests counting who celebrates Christmas, Hanukkah, and Chinese New Year.
- Shares with teacher, “My name at school is Louis, but at home it is Young-Min Kim.”
- During music time, child tells group, “At the powwow, my sister did the fancy dance.”
- During lunch, asks another child, “Why don’t you eat meat?”
History–Social Science:
Connecting to Our Early Experiences in Three Strands: Self and Society, Becoming a Preschool Community Member, and Marketplace

Focus Statement

Students reflect on their own early experiences with three strands of the history–social science domain and then interview other students to explore and compare their experiences. They then participate in a reflective discussion regarding what they learned from this experience and what it might mean for their work with young children and families.

Curriculum Alignment Project (CAP) Student Learning Outcomes

The Curriculum Alignment Project’s (CAP) lower division eight courses and student learning outcomes are mapped onto each instructional guide learning experience. See Appendix A for the specific student learning outcomes, objectives, and examples of course content and topics for the courses listed below.

- Child Growth and Development
- Child, Family and Community
- Teaching in a Diverse Society
- Practicum-Field Experience

Instructional Methodologies

- Conversation grid
- Pairs or small groups
- Personal reflection
- Reflective discussion

California Early Childhood Educator Competency Areas to Consider

The Faculty Initiative Project will undertake a comprehensive process in the future to map the content of the instructional guides to the California Department of Education, Early Education and Support Division’s California Early Childhood Educator Competencies. The “Competency Areas to Consider” below are listed in this instructional
guide as a preliminary exploration of how particular competency areas might be addressed through these learning experiences.

- Child Development and Learning
- Cultural, Diversity, and Equity
- Family and Community Engagement
- Professionalism
Before You Start

The first two learning experiences in this domain involve students in connecting to their early experiences with the content of the history–social science domain. This learning experience engages students with their early experiences relating to the strands of Self and Society, Becoming a Preschool Community Member, and Marketplace.

It is strongly recommended that instructors and students read the domain introductory material entitled “Scope of the Foundations” (California Preschool Learning Foundations, Volume 3, pp. 1–4). In particular, the information on the knowledge base of this domain for young children on page 3 will help students understand the importance and pervasiveness of this domain. Many of the foundations in this domain are strongly related to the foundations in the social-emotional development domain in Volume 1 of the California Preschool Learning Foundations. Instructors might want to review those so that they can alert students to this and/or respond to students who might recognize some of these relationships as they gain awareness of this domain.

As with many of the learning experiences in previous instructional guides that connect students to their own experiences with the content of domains, sensitivity and alertness on the part of faculty is important. These activities can elicit wonderful memories as well as some that are challenging. It is important the sharing of memories be on a voluntary basis. However, it is in the discussion and reflection that students will gain understanding of how these foundations can play out differently for many of them and for many of the children with whom they work.

This learning experience is similar to the learning experience entitled “Connecting to Our Early Experiences with the Visual and Performing Arts” in the Instructional Guide for the California Preschool Learning Foundations, Volume 2. The methodology, which involves use of a “conversation grid,” can be used for any domain or combination of domains, with different students or pairs of students working with different domains. In that case, the accompanying handout would need to be modified and appropriate text inserted for different domains. An electronic version of this handout will be available when this instructional guide is online at www.wested.org/facultyinitiative.

Two other learning experiences in the history–social science domain may also elicit personal experiences for students. Learning Experience 7, “Exploring the Impact of
Families and Culture on Children’s Development of History–Social Science Knowledge and Skills,” and Learning Experience 8, “Identifying Family and Cultural Components in the History–Social Science Foundations," ask students to think about family, community, and cultural beliefs and practices related to some of the content of the history–social science foundations. Instructors may wish to combine and/or modify any of these learning experiences to provide opportunities for students to think about how their own experiences can inform their work with the history–social science foundations.

Ask students to read the domain introductory material entitled “Scope of the Foundations.” Note the relationship of these foundations to the themes deemed important by the National Council for the Social Studies (California Preschool Learning Foundations, Volume 3, p. 2). Rather than working with specific substrands, this learning experience can help students become familiar with the broad understanding and knowledge base that underlies the history–social science domain and how that relates to young children. This knowledge base is described on page 3 and includes the following descriptions for the three strands addressed in this learning experience:

- **Self and Society:** beginning to identify with how their family does things and understand that other families and people have ways of doing things that are different or similar to what their family does
- **Becoming a Preschool Community Member (Civics):** how to live with others and how rules work, such as taking turns to go down the slide
- **Marketplace (Economics):** a beginning understanding of money and the exchange of things and services, such as groceries purchased at the store

**Getting it started**
Let students know that they will be looking at their own experiences relating to the knowledge base for three strands of the history–social science domain. As a whole group, review Handout 1 which accompanies this learning experience. Handout 1 contains three columns, each headed with one of the following questions:

**Self and Society**
What are some memories of realizing that other families did things differently from your own? Or that your family or community had some unique qualities that you came to cherish?
Becoming a Preschool Community Member (Civics)
Recall an experience where you learned about a rule. Can you recall a situation where you helped friends, coworkers, or family members resolve a conflict about a rule?

Marketplace (Economics)
What are some memories you have about exchanges when you were a child? Do you remember bartering or negotiating exchange with friends, siblings or other family members, or community members?

Ask students to think about these questions individually for a few minutes. After several minutes, ask for examples that they have thought of. Then invite them to fill out the first row with their own experiences. They might need a little time to remember their experiences, but remind them to keep their responses brief.

Keeping it going
Then ask them to work in groups of three or four, depending on class size, and share their memories with each other. Students are to ask each other the three questions that head the empty columns and briefly write in the other students’ responses. Since these will be already written, they won’t need as much time with others as they did with their own responses.

In these discussions, students can be encouraged to change or add to their own memories, based on what they hear from their peers. It is a way to point out how adults and children can scaffold the development of each other’s personal and social understanding.

They can then move on to mingle with more students and ask them the questions for each column. How many others each student interviews will depend on the time available. They could do two or three or fill up many rows. Providing 30 minutes will give students time to gather enough information for further reflection. Instructors could also extend the time available and encourage students to discuss any outstanding differences or similarities with other students.

Online Options
Students could post their own experiences online and then review those of their classmates. Students could also make notes on their own form of other students’ experiences and then be prepared to discuss these shared observations in class.
Putting it together with reflective questions
After the students have interviewed one another, bring them together for a discussion of the following questions:

- What similar experiences did you discover?
- What different experiences did you discover?
- What does this suggest in regard to working with the history–social science domain with young children? (Students can be prompted in this by considering what children bring to this domain and thinking about what differences there might be in children’s daily and family experiences related to the strands of this domain.)
- How might you apply what you have learned here to your current or future work with young children?

Another way
This learning experience can be done in class or out of class. Students can fill in their own responses in class and then interview familiar people outside of class instead of interviewing peers in class. The in-class discussion should follow either method, as it is in the discussion that understanding of the knowledge base will be expanded.

Taking it further
This learning experience is designed to be done with three strands, as a way to introduce students to this domain. However, the other two strands could be added to the handout, and students could then work with all five strands in this domain. Whether instructors use three or five strands would depend on their understanding of your students’ experience and/or level of education.
Connecting to Our Early Experiences with Three Strands of the History–Social Science Domain

Conversation Grid

Instructions: As discussed in class, fill out this conversation grid first for yourself and then find three or four others to interview. These interviews will be followed by a class discussion of results.

| History and Social Sciences |  |
|----------------------------|  |
| **Self and Society:**      | **Becoming a Preschool Community Member** | **Marketplace** |
| What are some memories of realizing that other families did things differently from your own? Or that your family or community had some unique qualities that you came to cherish? | Recall an experience where you learned about a rule. Can you recall a situation where you helped friends, coworkers, or family members resolve a conflict about a rule? | What are some memories you have about exchanges when you were a child? Do you remember bartering or negotiating exchange with friends, siblings or other family members, or community members? |
| **Self**                   |  |  |
| Person 1                   |  |  |
| Person 2                   |  |  |
| Person 3                   |  |  |
| Person 4                   |  |  |
| Person 5                   |  |  |
| Person 6                   |  |  |
History–Social Science

The preschool foundations for history–social science relate to:

*History–Social Science Content Standards for California Public Schools, Kindergarten Through Grade Twelve* (CDE, 2005)

National Council for Social Studies:
10 important themes in social studies
History–Social Science

**Self and Society:** beginning to identify with how their family does things and understand that other families and people have ways of doing things that are different or similar to what their family does.

**Becoming a Preschool Community Member (Civics):** how to live with others and how rules work, such as taking turns to go down the slide.

History–Social Science: Learning Experience 1

Marketplace (Economics): a beginning understanding of money and the exchange of things and services, such as groceries purchased at the store.

**Sense of Time (History):** events that happened in the past, even before they were born, such as when their mommy was a little girl.
History–Social Science

**Sense of Place (Geography):** the location of familiar places in relation to each other, such as knowing the way to preschool or that the park is across the street from the grocery store) and the different kinds of places where people live.

**(Ecology)** learning to take care of earth and animals.

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**Connecting to Our Early Experiences with Three Strands of the History–Social Science Domain**

Conversation Grid

Instructions: As discussed in class, fill out this conversation grid first for yourself and then find three or four others to interview. These interviews will be followed by a class discussion of results.

<table>
<thead>
<tr>
<th>History and Social Sciences</th>
<th>Skill and Society: What are some memories of realizing that other families did things differently from your own? Or that your family or community had unique qualities that you come to cherish?</th>
<th>Becoming a Preschool Community Member: Recall an experience where you learned about a rule. Can you recall a situation where you helped friends, coworkers, or family members resolve a conflict about a rule?</th>
<th>Marketplace: What are some memories you have about exchanges when you were a child? Do you remember buying or negotiating exchanges with friends, siblings, or other family members, or community members?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Person 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Person 2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
History–Social Science

- What similar experiences did you discover?
- What different experiences did you discover?
- What does this suggest in regard to working with the history–social science domain with young children?
- How might you apply what you have learned here to your current or future work with young children?
History–Social Science: Exploring Our Connections to the Substrands of the History–Social Science Domain

Focus Statement

Students reflect on some questions and also consider their own experiences for each substrand. They then participate in a reflective discussion on how their experiences and responses might affect their work with young children.

Curriculum Alignment Project (CAP) Student Learning Outcomes

The Curriculum Alignment Project’s (CAP) lower division eight courses and student learning outcomes are mapped onto each instructional guide learning experience. See Appendix A for the specific student learning outcomes, objectives, and examples of course content and topics for the courses listed below.

• Child Growth and Development
• Child, Family and Community
• Teaching in a Diverse Society

Instructional Methodologies

• Class discussion
• Pairs or small group
• Personal reflection
• Reflective discussion

California Early Childhood Educator Competency Areas to Consider

The Faculty Initiative Project will undertake a comprehensive process in the future to map the content of the instructional guides to the California Department of Education, Early Education and Support Division’s California Early Childhood Educator Competencies. The “Competency Areas to Consider” below are listed in this instructional guide as a preliminary exploration of how particular competency areas might be addressed through these learning experiences.

• Child Development and Learning
• Cultural, Diversity, and Equity
• Family and Community Engagement
• Professionalism
History–Social Science: Exploring Our Connections to the Substrands of the History–Social Science Domain

Before You Start

This learning experience asks students to respond briefly to questions or situations that relate to the substrands for each strand in this domain. Asking students to respond to some of the questions in this learning experience could bring up some memories of difficult times or situations in their lives. Therefore, it is recommended that instructors review the strands and substrands with their questions and situations and ask students to choose three or four for responses. Some students might be willing or even eager to bring up difficulties in their past or current lives, and faculty should be prepared to handle these responses with care and compassion.

It is a good idea to introduce students to the domain before asking them to find some of their personal connections to it. For this purpose, instructors might have students work through one of the two learning experiences in this instructional guide that are designed to acquaint students with this domain: “Piecing Together the History–Social Science Domain Content Puzzle” (Learning Experience 3) and “Exploring the History–Social Science Domain Through Vocabulary and Key Elements” (Learning Experience 4).

Much of the value of this learning experience will be in the familiarity that students will build with what these foundations mean as they play out in our lives as adult citizens.

Handout 1, a handout of suggested questions is provided, and an electronic version will be available when this instructional guide is online at www.wested.org/facultyinitiative.

Information Delivery

Review the domain of history–social science by making sure students have read the introduction to the domain. This will give students a deeper sense of the concepts addressed in this domain and will support their work in this learning experience. The second paragraph of the introduction (California Preschool Learning Foundations, Volume 3, page 1) is especially important as it presents the fundamental value of this domain: “. . . helps children learn about themselves in a social and human context, enabling them to acquire a deep understanding of the responsibilities of members of a democratic society, their place in a complex economy, the legacy of past generations who contributed to society, and an appreciation of richness and diversity of other people.”
**Getting it started**
Provide students with Handout 1, the handout included with this learning experience. Let them know that they will be choosing several of these questions or situations and will respond briefly to them. Exactly how many they choose can vary, but three or four are recommended, and instructors might want to ask students to not do more than one from the same strand. Let them know that they will be doing this individually at first and then will meet with a partner or as a triad to discuss their responses. Be sure to let them know that what they respond to is up to them and they might want to be sure that they pick questions or situations that they will be comfortable sharing. Or instructors might decide that students are not required to share all their responses in a small group.

**Keeping it going**
Review the handout with students. Suggest that they can record their responses on paper, electronic tablet, or laptop. These will not be turned in for review, but they must keep them available until the end of the exercise.

Give students some time to choose their questions or situations and respond. They will need to think for a while about some of them if they are recalling experiences or events. Let them know that they only need to respond briefly with two to four sentences.

Next organize students into pairs or triads, whichever would work best for the number of students in the class, so that they can share and discuss their responses. Remind students that they are not required to share anything they might not be comfortable sharing. Ask students to first find out if they responded to any of the same substrands and to share their responses to those, discussing where there were similarities and differences in the experiences they described. Then ask them to share other responses.

**Putting it together**
Reconvene the class for a large group discussion. Instructors might want to tally how many responses there were for each of the substrands. This would provide some information for the discussion. Including the following questions in the discussion would help students understand the domain and their connection to it:

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**Online Options**
Students could complete and post their completed handouts online for the instructor and/or other students to review.
• What were the similarities and differences you found when discussing your responses with a partner or small group?
• Were there some substrands that you felt were not familiar concepts for you? Which ones?
• Were some easier than others to consider for responding? Which ones?

Note: Use these next two questions if you have tallied and identified the number of responses for each substrand:

• Why do you think you all responded more to some substrands than to others?
• What does this suggest about the substrands?

Reflection

Conclude by asking students to reflect on this experience with the following questions:

• Was anything surprising to you about these substrands?
• Do you have values that are important to you that are expressed in these substrands? What are they?
• How do you think your own experiences with the content of this domain will affect the work you do with young children?
• Why do you think these are important areas of development to support in young children?
## Connecting to the History–Social Science Domain

<table>
<thead>
<tr>
<th>Strands and Substrands</th>
<th>Questions or Situations</th>
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<tbody>
<tr>
<td><strong>Strand: Self and Society</strong></td>
<td></td>
</tr>
<tr>
<td>Culture and Diversity</td>
<td>When do you remember being interested in languages or traditions other than your own? What were they and what was interesting about them?</td>
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<tr>
<td>Relationships</td>
<td>Have you had friendships in which you helped a friend and the friend helped you? Describe the ways in which you helped each other.</td>
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<tr>
<td>Social Roles and Occupations</td>
<td>What occupations or professions were you familiar with and/or interested in pursuing when you were younger?</td>
</tr>
<tr>
<td><strong>Strand: Becoming A Preschool Community Member (Civics)</strong></td>
<td></td>
</tr>
<tr>
<td>Skills for Democratic Participation</td>
<td>Have you ever been a part of a group that set ground rules for discussion? Can you remember what some of these were?</td>
</tr>
<tr>
<td>Responsible Conduct</td>
<td>Describe a situation where a friend was acting inappropriately and you were able to point that out and help your friend know what was appropriate.</td>
</tr>
<tr>
<td>Fairness and Respect for Other People</td>
<td>Describe a time when you felt that a rule or situation was unfair and you spoke up and were able to change it.</td>
</tr>
<tr>
<td>Conflict Resolution</td>
<td>What are some compromises you have made that enabled a routine or situation to work for everyone involved?</td>
</tr>
<tr>
<td><strong>Strand: Sense of Time (History)</strong></td>
<td></td>
</tr>
<tr>
<td>Understanding Past Events</td>
<td>Do you have some stories of past events that you have heard in your family or friendships? Describe them briefly.</td>
</tr>
</tbody>
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Faculty Initiative Project Instructional Guide for the California Preschool Learning Foundations, Volume 3
History–Social Science Domain
CDE/Early Education and Support Division (formerly CDD) and WestEd Center for Child and Family Studies
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<td>Anticipating and Planning Future Events</td>
<td>Describe the biggest event that you have ever been involved in planning. It could be travel, family events, rituals, or events at school or work.</td>
</tr>
<tr>
<td>Personal History</td>
<td>Think of a story from your childhood that you can share with peers.</td>
</tr>
<tr>
<td>Historical Changes in People and the World</td>
<td>Briefly draw a time line of your life that indicates important events.</td>
</tr>
<tr>
<td><strong>Strand: Sense of Place (Geography and Ecology)</strong></td>
<td></td>
</tr>
<tr>
<td>Navigating Familiar Locations</td>
<td>What verbal or written directions would you give someone to get from where you are now to where you work? (Or from home to school or school to work)</td>
</tr>
<tr>
<td>Caring for the Natural World</td>
<td>What are some ways in which you care for the natural world?</td>
</tr>
<tr>
<td>Understanding the Physical World Through Drawing and Maps</td>
<td>How and when do you use maps?</td>
</tr>
<tr>
<td><strong>Strand: Marketplace (Economics)</strong></td>
<td></td>
</tr>
<tr>
<td>Exchange</td>
<td>How would you define “bartering”?</td>
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History–Social Science

“...children learn about themselves in a social and human context, enabling them to acquire a deep understanding of the responsibilities of members of a democratic society, their place in a complex economy, the legacy of past generations who contributed to society, and an appreciation of richness and diversity of other people.”

(California Preschool Learning Foundations, Volume 3, page 1)
Connecting to the History–Social Science Domain

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History–Social Science

- What were the similarities and differences you found when discussing your responses with a partner or small group?
- Were there some substrands that you felt were not familiar concepts for you? Which ones?
- Were some easier than others to consider for responding? Which ones?
History–Social Science

• Was anything surprising to you about these substrands?
• Do you have values that are important to you that are expressed in these substrands? What are they?

History–Social Science

• How do you think your own experiences with the content of this domain will affect the work you do with young children?
• Why do you think these are important areas of development to support in young children?
History–Social Science: 
Piecing Together the History–Social Science 
Domain Content Puzzle

Focus Statement

Students become familiar with the content and structure of the history–social science 
foundations by assembling puzzle pieces of the strands, substrands, and foundations of 
the domain.

Curriculum Alignment Project (CAP) Student Learning Outcomes

The Curriculum Alignment Project’s (CAP) lower division eight courses and student 
learning outcomes are mapped onto each instructional guide learning experience. See 
Appendix A for the specific student learning outcomes, objectives, and examples of 
course content and topics for the courses listed below.

• Child Growth and Development
• Child, Family and Community
• Introduction to Curriculum
• Principles and Practices of Teaching Young Children
• Teaching in a Diverse Society
• Practicum-Field Experience

Instructional Methodologies

• Class discussion
• Pairs or small groups
• Problem solving
• Reflective discussion

California Early Childhood Educator Competency Areas to Consider

The Faculty Initiative Project will undertake a comprehensive process in the future to 
map the content of the instructional guides to the California Department of Education, 
Early Education and Support Division’s California Early Childhood Educator 
Competencies. The “Competency Areas to Consider” below are listed in this instructional 
guide as a preliminary exploration of how particular competency areas might be 
addressed through these learning experiences.
• Child Development and Learning
• Culture, Diversity, and Equity
• Relationships, Interactions, and Guidance
• Family and Community Engagement
• Learning Environments and Curriculum
• Professionalism
Before You Start

In this learning experience, students will have an opportunity to become familiar with the organizational structure and content of the history–social science domain of the California Preschool Learning Foundations, Volume 3. In addition to supporting students in exploring the structure of this domain, the learning experience can also provide an introduction to the organizational structure of all the preschool learning foundations domains because their structures are very similar.

As pointed out on page 3 of the California Preschool Learning Foundations, Volume 3, “These strands and substrands are less familiar in the field of early childhood education than those for domains such as social-emotional development . . . . Although perhaps new for some early childhood educators, this terminology makes visible the learning that often occurs in the preschool setting.” By examining the foundations in this domain, students will discover how the history–social science foundations are similar to foundations in other domains, especially the social-emotional development domain. Learning Experiences 11 and 12 for the history–social science domain in this instructional guide are about these relationships across the domains.

Students will be assembling puzzles of the domain elements, and Handout 1, a handout of the pieces is included if instructors wish to use it. The pieces can be cut and packaged in envelopes prior to the class session, or instructors may choose to make their own puzzle pieces. An electronic version of these puzzle pieces, Handout 1, will be available when this instructional guide is available online at www.wested.org/facultyinitiative. Instructors can also create their own puzzle pieces by using a large card or half sheet of 8 ½” x 11” paper for each strand, a paper strip for each of the substrands (including the wording “At around 48 months of age” and “At around 60 months of age” on a line below each substrand name), and a paper strip for each of the foundations. The number of puzzle sets required will depend on how instructors decide to group the students—individually, in pairs, or in small groups.

If instructors have access to several copies of the California Preschool Learning Foundations, Volume 3, students could use them to check their work. Two resources that students can also use as references are included with this instructional guide: (1) Handout 2, a list of the history–social science domain strands, substrands, and foundations and (2) a summary of these strands, substrands, and foundations in Appendix B. An electronic version of both handouts will be available when this instructional guide is online at www.wested.org/facultyinitiative.
The history–social science domain has five strands: Self and Society, Becoming a Preschool Community Member (Civics), Sense of Time (History), Sense of Place (Geography and Ecology), and Marketplace (Economics). The Self and Society and Sense of Place strands each have three substrands, the Becoming a Preschool Community Member and Sense of Time strands each have four substrands, and the Marketplace strand has one substrand. A table summarizing these strands, substrands, and the number of foundations for each substrand can be found on page 7 of the *California Preschool Learning Foundations, Volume 3*. It is provided here for reference:

<table>
<thead>
<tr>
<th>Strand</th>
<th>Substrand</th>
<th>Foundation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self and Society</td>
<td>1.0 Culture and Diversity</td>
<td>1.1</td>
</tr>
<tr>
<td></td>
<td>2.0 Relationships</td>
<td>2.1</td>
</tr>
<tr>
<td></td>
<td>3.0 Social Roles and Occupations</td>
<td>3.1</td>
</tr>
<tr>
<td>Becoming a Preschool Community Member (Civics)</td>
<td>1.0 Skills for Democratic Participation</td>
<td>1.1</td>
</tr>
<tr>
<td></td>
<td>2.0 Responsible Conduct</td>
<td>2.1</td>
</tr>
<tr>
<td></td>
<td>3.0 Fairness and Respect for Other People</td>
<td>3.1</td>
</tr>
<tr>
<td></td>
<td>4.0 Conflict Resolution</td>
<td>4.1</td>
</tr>
<tr>
<td>Sense of Time (History)</td>
<td>1.0 Understanding Past Events</td>
<td>1.1</td>
</tr>
<tr>
<td></td>
<td>2.0 Anticipating and Planning Future Events</td>
<td>2.1</td>
</tr>
<tr>
<td></td>
<td>3.0 Personal History</td>
<td>3.1</td>
</tr>
<tr>
<td></td>
<td>4.0 Historical Changes in People and the World</td>
<td>4.1</td>
</tr>
<tr>
<td>Sense of Place (Geography and Ecology)</td>
<td>1.0 Navigating Familiar Locations</td>
<td>1.1</td>
</tr>
<tr>
<td></td>
<td>2.0 Caring for the Natural World</td>
<td>2.1</td>
</tr>
<tr>
<td></td>
<td>3.0 Understanding the Physical World Through Drawings and Maps</td>
<td>3.1</td>
</tr>
<tr>
<td>Marketplace (Economics)</td>
<td>1.0 Exchange</td>
<td>1.1</td>
</tr>
</tbody>
</table>
Brief explanations of the strands are on page 3 of the *California Preschool Learning Foundations, Volume 3*. Because students may not be familiar with the content of the strands in an early childhood context, it may be useful to review these explanations.

**Getting it started**

If students have not worked with any other domains of the *California Preschool Learning Foundations*, instructors may wish to begin by asking the students to review the introductory sections on pages xi-xiv of the *California Preschool Learning Foundations, Volume 3*: opening paragraphs (pp. xi-xii), “Content of this Volume” (p. xii), and “Organization of the Foundations” (pp. xiii-xiv). This material provides basic background information about what the foundations are and how they are organized.

Then the history–social science domain can be introduced by either asking students to read the “History–Social Science Domain” section on pages xii-xiii of the *California Preschool Learning Foundations, Volume 3* or presenting an overview of the domain and its five strands. It may also be helpful to review with students the two age designations: “At around 48 months of age” and “At around 60 months of age.” Explanations for these designations can be found on page xiii. It is important for students to understand that the foundations describe knowledge and skills that most children have acquired by the end of their first or second year in a high-quality preschool.

**Keeping it going**

Explain to the students that they will be given cards and strips of paper with the names of the strands, substrands, and foundations for the history–social science domain. They are to assemble these pieces to show the organizational structure of the domain by first identifying the five strands and then placing the appropriate substrands and foundations under each strand. Students should also be sure to consider whether each foundation describes what children know or can do at around 48 or 60 months of age.

Although the size of the class may determine the instructor’s decision to have students work individually or in some kind of group, having students work with at least one other student can promote discussion of the content as students figure out where each substrand and foundation goes. Encouraging them to discuss and explain their choices may help students engage more deeply with the content.
Putting it together
After the students have completed their puzzles, ask them to compare their structures first with those of the other students, noting and discussing similarities and differences. Then they can check their work with the actual foundations on pages 8–22 or pages 103–107 of the California Preschool Learning Foundations, Volume 3; with Handout 2 for this learning experience; or with Appendix B of this instructional guide. If the students’ completed puzzles vary from the actual foundations, ask them to reflect on why they made their choices and why they think the foundations are ordered the way they are.

Taking it further
Ask students to identify one foundation in each strand that they believe is the most important for teachers to understand and be able to support children’s development. If students do this in groups, instructors may suggest that they come to consensus on each foundation or have minority and majority choices. Encourage students to explain the reasoning for their choices.

Another approach/way
Depending on the number of students in the class and the time allotted for this learning experience, instructors may decide to assign each group of students the substrands and foundations for only one strand rather than all five strands. The groups of students would then present their completed puzzles for their assigned strand to the whole class. Students could compare their work with the actual foundations either before or after the presentations. If students share the comparisons after the presentations, doing this step as a whole class would ensure that all the students see the correct ordering of the foundations.

Reflection
After the students have reviewed and discussed their puzzles, ask them to respond to the following questions:

- As you look at the completed puzzles or organizational structure of the foundations in the history—social science domain, what stands out for you?
- Which foundations were easier to place? Why? Which ones were more challenging? Why?
- What examples of any of these foundations have you seen?
Which substrand is the least familiar to you? How could you learn more about that substrand?
### History–Social Science Domain Puzzle

#### Self and Society

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Culture and Diversity</strong></td>
<td><strong>Culture and Diversity</strong></td>
</tr>
<tr>
<td>Exhibit developing cultural, ethnic, and racial identity and understand relevant language and cultural practices. Display curiosity about diversity in human characteristics and practices, but prefer those of their own group.</td>
<td>Manifest stronger cultural, ethnic, and racial identity and greater familiarity with relevant language, traditions, and other practices. Show more interest in human diversity, but strongly favor characteristics of their own group.</td>
</tr>
<tr>
<td><strong>Relationships</strong></td>
<td><strong>Relationships</strong></td>
</tr>
<tr>
<td>Interact comfortably with many peers and adults; actively contribute to creating and maintaining relationships with a few significant adults and peers.</td>
<td>Understand the mutual responsibilities of relationships; take initiative in developing relationships that are mutual, cooperative, and exclusive.</td>
</tr>
<tr>
<td><strong>Social Roles and Occupations</strong></td>
<td><strong>Social Roles and Occupations</strong></td>
</tr>
<tr>
<td>Play familiar adult roles and occupations (such as parent, teacher, and doctor) consistent with their developing knowledge of these roles.</td>
<td>Exhibit more sophisticated understanding of a broader variety of adult roles and occupations, but uncertain how work relates to income.</td>
</tr>
</tbody>
</table>
### Becoming a Preschool Community Member (Civics)

#### At around 48 months of age

**Skills for Democratic Participation**

- Identify as members of a group, participate willingly in group activities, and begin to understand and accept responsibility as group members, although assistance is required in coordinating personal interests with those of others.

**Responsible Conduct**

- Strive to cooperate with group expectations to maintain adult approval and get along with others. Self-control is inconsistent, however, especially when children are frustrated or upset.

**Fairness and Respect for Other People**

- Respond to the feelings and needs of others with simple forms of assistance, sharing, and turn-taking. Understand the importance of rules that protect fairness and maintain order.

#### At around 60 months of age

**Skills for Democratic Participation**

- Become involved as responsible participants in group activities, with growing understanding of the importance of considering others’ opinions, group decision making, and respect for majority rules and the views of group members who disagree with the majority.

**Responsible Conduct**

- Exhibit responsible conduct more reliably as children develop self-esteem (and adult approval) from being responsible group members. May also manage others’ behavior to ensure that others also fit in with group expectations.

**Fairness and Respect for Other People**

- Pay attention to others’ feelings, more likely to provide assistance, and try to coordinate personal desires with those of other children in mutually satisfactory ways. Actively support rules that protect fairness to others.
<table>
<thead>
<tr>
<th>Conflict Resolution</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Can use simple bargaining strategies and seek adult assistance when in conflict with other children or adults, although frustration, distress, or aggression also occurs.</td>
<td>More capable of negotiating, compromising, and finding cooperative means of resolving conflict with peers or adults, although verbal aggression may also result.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sense of Time</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(History)</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Understanding Past Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recall past experiences easily and enjoy hearing stories about the past, but require adult help to determine when past events occurred in relation to each other and to connect them with current experience.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Anticipating and Planning Future Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anticipate events in familiar situations in the near future, with adult assistance.</td>
</tr>
</tbody>
</table>
### Personal History

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Proudly display developing skills to attract adult attention and share simple accounts about recent experiences.</strong></td>
<td><strong>Compare current abilities with skills at a younger age and share more detailed autobiographical stories about recent experiences.</strong></td>
</tr>
</tbody>
</table>

### Historical Changes in People and the World

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Easily distinguish older family members from younger ones (and other people) and events in the recent past from those that happened “long ago,” although do not readily sequence historical events on a timeline.</strong></td>
<td><strong>Develop an interest in family history (e.g., when family members were children) as well as events of “long ago,” and begin to understand when these events occurred in relation to each other.</strong></td>
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</tbody>
</table>

### Sense of Place

**Geography and Ecology**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>At around 48 months of age</strong></td>
<td><strong>At around 60 months of age</strong></td>
</tr>
</tbody>
</table>

### Navigating Familiar Locations

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Identify the characteristics of familiar locations such as home and school, describe objects and activities associated with each, recognize the routes between them, and begin using simple directional language (with various degrees of accuracy).</strong></td>
<td><strong>Comprehend larger familiar locations, such as the characteristics of their community and region (including hills and streams, weather, common activities) and the distances between familiar locations (such as between home and school), and compare their home community with those of others.</strong></td>
</tr>
<tr>
<td>Caring for the Natural World</td>
<td></td>
</tr>
<tr>
<td>-----------------------------</td>
<td></td>
</tr>
<tr>
<td>Show an interest in nature (including animals, plants, and weather) especially as children have direct experience with them. Begin to understand human interactions with the environment (such as pollution in a lake or stream) and the importance of taking care of plants and animals.</td>
<td></td>
</tr>
<tr>
<td>Show an interest in a wider range of natural phenomena, including those not directly experienced (such as snow for a child living in Southern California), and are more concerned about caring for the natural world and the positive and negative impacts of people on the natural world (e.g., recycling, putting trash in trash cans).</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Understanding the Physical World Through Drawings and Maps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can use drawings, globes, and maps to refer to the physical world, although often unclear on the use of map symbols.</td>
</tr>
<tr>
<td>Create their own drawings, maps, and models; are more skilled at using globes, maps, and map symbols; and use maps for basic problem solving (such as locating objects) with adult guidance.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marketplace (Economics)</th>
</tr>
</thead>
<tbody>
<tr>
<td>At around 48 months of age</td>
</tr>
<tr>
<td>At around 60 months of age</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Exchange</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understand ownership, limited supply, what stores do, give-and-take, and payment of money to sellers. Show interest in money and its function, but still figuring out the relative value of coins.</td>
</tr>
<tr>
<td>Understand more complex economic concepts (e.g., bartering; more money is needed for things of greater value; if more people want something, more will be sold).</td>
</tr>
</tbody>
</table>
## History–Social Science
### Self and Society

#### 1.0 Culture and Diversity

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Exhibit developing cultural, ethnic, and racial identity and understand relevant language and cultural practices. Display curiosity about diversity in human characteristics and practices, but prefer those of their own group.</td>
<td>1.1 Manifest stronger cultural, ethnic, and racial identity and greater familiarity with relevant language, traditions, and other practices. Show more interest in human diversity, but strongly favor characteristics of their own group.</td>
</tr>
</tbody>
</table>

#### 2.0 Relationships

| 2.1 Interact comfortably with many peers and adults; actively contribute to creating and maintaining relationships with a few significant adults and peers. | 2.1 Understand the mutual responsibilities of relationships; take initiative in developing relationships that are mutual, cooperative, and exclusive. |

#### 3.0 Social Roles and Occupations

| 3.1 Play familiar adult social roles and occupations (such as parent, teacher, and doctor) consistent with their developing knowledge of these roles. | 3.1 Exhibit more sophisticated understanding of a broader variety of adult roles and occupations, but uncertain how work relates to income. |

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## Becoming a Preschool Community Member (Civics)

### 1.0 Skills for Democratic Participation

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Identify as members of a group, participate willingly in group activities, and begin to understand and accept responsibility as group members, although assistance is required in coordinating personal interests with those of others.</td>
<td>1.1 Become involved as responsible participants in group activities, with growing understanding of the importance of considering others' opinions, group decision making, and respect for majority rules and the views of group members who disagree with the majority.</td>
</tr>
</tbody>
</table>

### 2.0 Responsible Conduct

| 2.1 Strive to cooperate with group expectations to maintain adult approval and get along with others. Self-control is inconsistent, however, especially when children are frustrated or upset. | 2.1 Exhibit responsible conduct more reliably as children develop self-esteem (and adult approval) from being responsible group members. May also manage others' behavior to ensure that others also fit in with group expectations. |

### 3.0 Fairness and Respect for Other People

| 3.1 Respond to the feelings and needs of others with simple forms of assistance, sharing, and turn-taking. Understand the importance of rules that protect fairness and maintain order. | 3.1 Pay attention to others' feelings, more likely to provide assistance, and try to coordinate personal desires with those of other children in mutually satisfactory ways. Actively support rules that protect fairness to others. |

### 4.0 Conflict Resolution

| 4.1 Can use simple bargaining strategies and seek adult assistance when in conflict with other children or adults, although frustration, distress, or aggression also occurs. | 4.1 More capable of negotiating, compromising, and finding cooperative means of resolving conflict with peers or adults, although verbal aggression may also result. |
### Sense of Time (History)

#### 1.0 Understanding Past Events

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Recall past experiences easily and enjoy hearing stories about the past, but require adult help to determine when past events occurred in relation to each other and to connect them with current experience.</td>
<td>1.1 Show improving ability to relate past events to other past events and current experiences, although adult assistance continues to be important.</td>
</tr>
</tbody>
</table>

#### 2.0 Anticipating and Planning Future Events

| 2.1 Anticipate events in familiar situations in the near future, with adult assistance. | 2.1 Distinguish when future events will happen, plan for them, and make choices (with adult assistance) that anticipate future needs. |

#### 3.0 Personal History

| 3.1 Proudly display developing skills to attract adult attention and share simple accounts about recent experiences. | 3.1 Compare current abilities with skills at a younger age and share more detailed autobiographical stories about recent experiences. |

#### 4.0 Historical Changes in People and the World

| 4.1 Easily distinguish older family members from younger ones (and other people) and events in the recent past from those that happened “long ago,” although do not readily sequence historical events on a timeline. | 4.1 Develop an interest in family history (e.g., when family members were children) as well as events of “long ago,” and begin to understand when these events occurred in relation to each other. |
### Sense of Place (Geography and Ecology)

#### 1.0 Navigating Familiar Locations

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Identify the characteristics of familiar locations such as home and school, describe objects and activities associated with each, recognize the routes between them, and begin using simple directional language (with various degrees of accuracy).</td>
<td>1.1 Comprehend larger familiar locations, such as the characteristics of their community and region (including hills and streams, weather, common activities) and the distances between familiar locations (such as between home and school), and compare their home community with those of others.</td>
</tr>
</tbody>
</table>

#### 2.0 Caring for the Natural World

| 2.1 Show an interest in nature (including animals, plants, and weather) especially as children have direct experience with them. Begin to understand human interactions with the environment (such as pollution in a lake or stream) and the importance of taking care of plants and animals. | 2.1 Show an interest in a wider range of natural phenomena, including those not directly experienced (such as snow for a child living in Southern California), and are more concerned about caring for the natural world and the positive and negative impacts of people on the natural world (e.g., recycling, putting trash in trash cans). |

#### 3.0 Understanding the Physical World Through Drawings and Maps

| 3.1 Can use drawings, globes, and maps to refer to the physical world, although often unclear on the use of map symbols. | 3.1 Create their own drawings, maps, and models; are more skilled at using globes, maps, and map symbols; and use maps for basic problem solving (such as locating objects) with adult guidance. |

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### Marketplace (Economics)

#### 1.0 Exchange

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Understand ownership, limited supply, what stores do, give-and-take, and payment of money to sellers. Show interest in money and its function, but still figuring out the relative value of coins.</td>
<td>1.1 Understand more complex economic concepts (e.g., bartering; more money is needed for things of greater value; if more people want something, more will be sold).</td>
</tr>
</tbody>
</table>

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History–Social Science

**Strands**

- Self and Society
- Becoming a Preschool Member (Civics)
- Sense of Time (History)
- Sense of Place (Geography and Ecology)
- Marketplace (Economics)
History–Social Science

**Self and Society:** centers on culture and diversity, relationships, and social roles and occupations.

**Becoming a Preschool Community Member (Civics):** pertains to skills for democratic participation, responsible conduct, fairness and respect for other people, and conflict resolution.

History–Social Science: Learning Experience 3

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**Sense of Time (History):** includes understanding past events, anticipating and planning future events, personal history, and historical changes in people and the world.

History–Social Science: Learning Experience 3
**History–Social Science**

**Sense of Place (Geography and Ecology):** covers navigating familiar locations, caring for the natural world, and understanding the physical world through drawings and maps.

**Marketplace (Economics):** focuses on the economic concept of exchange.

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**History–Social Science**

**Self and Society**

1.0 Culture and Diversity
2.0 Relationships
3.0 Social Roles and Occupations
History–Social Science

**Becoming a Preschool Community Member (Civics)**
1.0  Skills for Democratic Participation
2.0  Responsible Conduct
3.0  Fairness and Respect for Other People
4.0  Conflict Resolution

---

History–Social Science

**Sense of Time (History)**
1.0  Understanding Past Events
2.0  Anticipating and Planning Future Events
3.0  Personal History
4.0  Historical Changes in People and the World
History–Social Science

Sense of Place (Geography and Ecology)
1.0 Navigating Familiar Locations
2.0 Caring for the Natural World
3.0 Understanding the Physical World Through Drawings and Maps

Marketplace (Economics)
1.0 Exchange

History–Social Science

Self and Society

1.0 Culture and Diversity

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 90 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.1</strong> Exhibit developing cultural, ethnic, and racial identity and understand relevant language and cultural practices. Display curiosity about diversity in human characteristics and practices, but prefer those of their own group.</td>
<td><strong>1.1</strong> Manifest stronger cultural, ethnic, and racial identity and greater familiarity with relevant language, traditions, and other practices. Show more interest in human diversity, but strongly favor characteristics of their own group.</td>
</tr>
</tbody>
</table>

Examples
- When parent leaves mom during drop-off, child seeks a teacher assistant who speaks the child’s home language.
- Tells a Chinese American friend, “I can speak your language. Ai Hao (Hello)”!
- Shares with teacher, after a holiday weekend, “I helped make the tamales!”
- Describes to a teacher the special foods her family ate at last night’s Passover Seder.
- Wants to touch Michel’s wheelchair.
- Proudly shares, “My mom can speak three languages: Cantonese, Vietnamese, and English”!
- Learns and uses some simple words in a different language that is used by other children in the group.
- Asks a new teacher, “Why do you always wear a scarf on your head?” and shows interest in the teacher’s explanation.
- Tels another girl, “You can’t play if you have short hair. Only boys can have short hair.”
History–Social Science

Completing the puzzle:
- Assemble the pieces to show the organizational structure of the domain
  - Identify the 5 strands
  - Place appropriate substrands and foundations under each strand
  - Consider whether each foundation describes what children know or can do at around 48 or 60 months of age

What stands out for you?
- Which foundations were easier to place? Why? Which ones were more challenging? Why?
- What examples of any of these foundations have you seen?
- Which substrand is the least familiar to you? How could you learn more about that substrand?
History–Social Science:  
Exploring the History–Social Science Domain Through Vocabulary and Key Elements

Focus Statement
Students review the vocabulary and key elements of the foundations and prepare a presentation or article that explains the history–social science domain to parents and other family members.

Curriculum Alignment Project (CAP) Student Learning Outcomes
The Curriculum Alignment Project’s (CAP) lower division eight courses and student learning outcomes are mapped onto each instructional guide learning experience. See Appendix A for the specific student learning outcomes, objectives, and examples of course content and topics for the courses listed below.

- Child Growth and Development
- Child, Family and Community
- Introduction to Curriculum
- Principles and Practices of Teaching Young Children
- Health, Safety and Nutrition
- Teaching in a Diverse Society
- Practicum-Field Experience

Instructional Methodologies
- Book review
- Class discussion
- Class presentation
- Pairs or small groups
- Creation of a visual representation
- Reflective discussion
California Early Childhood Educator Competency Areas to Consider

The Faculty Initiative Project will undertake a comprehensive process in the future to map the content of the instructional guides to the California Department of Education, Early Education and Support Division’s *California Early Childhood Educator Competencies*. The “Competency Areas to Consider” below are listed in this instructional guide as a preliminary exploration of how particular competency areas might be addressed through these learning experiences.

• Child Development and Learning
• Culture, Diversity, and Equity
• Relationships, Interactions, and Guidance
• Family and Community Engagement
• Learning Environments and Curriculum
History–Social Science: 
Exploring the History–Social Science Domain Through Vocabulary and Key Elements

Before You Start

In this learning experience, students will become more knowledgeable about the history–social science domain in the California Preschool Learning Foundations, Volume 3 by focusing on the vocabulary in the foundations. While many students may be familiar with terminology used in some of the other domains such as language and literacy or social-emotional development, the vocabulary in the history–social science foundations may be new to many if not all students, depending on their experiences in early care and education.

Some of the terms used in the foundations may be either new to the students or unfamiliar in the context of the foundations. It is important for students to understand the vocabulary in the strands, substrands, and foundations so that they can recognize when a child is demonstrating the competencies described in a particular foundation. This domain may also be unfamiliar to many parents and other family members, and a thorough understanding of the foundations will help prepare students to explain the foundations to families when the students are working in preschool programs.

Students will be working with the strands, substrands, foundations, and examples. An electronic version of the California Preschool Learning Foundations, Volume 3, which includes the examples, is available at the California Department of Education Web site (http://www.cde.ca.gov/sp/cd/re/psfoundations.asp#psfoundvol3). A summary of the foundations without the examples is provided in Handout 1 included with this learning experience and also in Appendix B of this instructional guide. When working with examples, it is important for students to understand that they “suggest possible ways in which children may demonstrate the competency addressed by a foundation. . . . In addition, one needs to be cautious about how the examples are used. They are intended to illustrate possible behaviors rather than to function as assessment items or to present curricular strategies (California Preschool Learning Foundations, Volume 3, page xiv).”

It is suggested that students create a word wall of new or unfamiliar terminology and key elements from the foundations. Instructors may want to use a whiteboard or have large sheets of paper such as chart or butcher paper for the wall. Students could also write their words on smaller sheets of paper such as large Post-it® Notes or half sheets (approximately 8 1/2” x 5 1/2”) and post these on a wall. Other materials needed include markers and painters’ tape or something to hold the paper on the wall.
In the “Deeper Understanding” segment, students are asked to select a book related to one of the history–social science strands and write a book review. There are several books listed in the References and Source Materials section of the *California Preschool Learning Foundations, Volume 3* (pp. 40–47). The National Association for the Education of Young Children also has publications on social studies; some are listed in the “Deeper Understanding” segment. Instructors may wish to select some books for students to choose from.

Students will be asked to review the foundations for this domain, and a summary of the foundations can be found in Appendix B of this instructional guide. Handout 1, a handout of the strands, substrands, and foundations, is also provided with this learning experience. An electronic version of this handout will be available when this instructional guide is online at www.wested.org/facultyinitiative. Asking students to also review the examples given with the foundations may help them better understand the foundations. If instructors have access to several copies of the *California Preschool Learning Foundations, Volume 3*, students could use them for this review. The publication is also available online at [http://www.cde.ca.gov/sp/cd/re/psfoundations.asp#psfoundvol3](http://www.cde.ca.gov/sp/cd/re/psfoundations.asp#psfoundvol3). Students with electronic devices such as laptops or tablets may be able to view the downloaded publication during class.

### Information Delivery

There are five strands in the history–social science domain:
- Self and Society
- Becoming a Preschool Community Member (Civics)
- Sense of Time (History)
- Sense of Place (Geography and Ecology)
- Marketplace (Economics)

Each strand has the following number of substrands:
- Self and Society strand has three substrands
- Becoming a Preschool Community Member (Civics) strand has four substrands
- Sense of Time (History) strand has four substrands
- Sense of Place (Geography and Ecology) strand has three substrands
- Marketplace (Economics) strand has one substrand

Each substrand has one foundation at the around 48-month level and at the around 60-month level. A summary is on page 7 of the *California Preschool Learning Foundations, Volume 3* and is provided here for your reference:
<table>
<thead>
<tr>
<th>Strand</th>
<th>Substrand</th>
<th>Foundation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self and Society</td>
<td>1.0 Culture and Diversity</td>
<td>1.1</td>
</tr>
<tr>
<td></td>
<td>2.0 Relationships</td>
<td>2.1</td>
</tr>
<tr>
<td></td>
<td>3.0 Social Roles and Occupations</td>
<td>3.1</td>
</tr>
<tr>
<td>Becoming a Preschool Community Member (Civics)</td>
<td>1.0 Skills for Democratic Participation</td>
<td>1.1</td>
</tr>
<tr>
<td></td>
<td>2.0 Responsible Conduct</td>
<td>2.1</td>
</tr>
<tr>
<td></td>
<td>3.0 Fairness and Respect for Other People</td>
<td>3.1</td>
</tr>
<tr>
<td></td>
<td>4.0 Conflict Resolution</td>
<td>4.1</td>
</tr>
<tr>
<td>Sense of Time (History)</td>
<td>1.0 Understanding Past Events</td>
<td>1.1</td>
</tr>
<tr>
<td></td>
<td>2.0 Anticipating and Planning Future Events</td>
<td>2.1</td>
</tr>
<tr>
<td></td>
<td>3.0 Personal History</td>
<td>3.1</td>
</tr>
<tr>
<td></td>
<td>4.0 Historical Changes in People and the World</td>
<td>4.1</td>
</tr>
<tr>
<td>Sense of Place (Geography and Ecology)</td>
<td>1.0 Navigating Familiar Locations</td>
<td>1.1</td>
</tr>
<tr>
<td></td>
<td>2.0 Caring for the Natural World</td>
<td>2.1</td>
</tr>
<tr>
<td></td>
<td>3.0 Understanding the Physical World</td>
<td>3.1</td>
</tr>
<tr>
<td></td>
<td>Through Drawings and Maps</td>
<td></td>
</tr>
<tr>
<td>Marketplace (Economics)</td>
<td>1.0 Exchange</td>
<td>1.1</td>
</tr>
</tbody>
</table>

An explanation about the examples for the foundations is on page xiv of the *California Preschool Learning Foundations, Volume 3*.

**Active Learning**

**Getting it started**

Begin this learning experience by asking students to review and discuss the strands, substrands, and foundations, with particular emphasis on the foundations. Depending on the number of students in the class and the amount of time allotted for this learning experience, instructors may have students work individually, in pairs, or in small groups and assign a certain number of substrands and foundations to each student or group of students.

As students review the foundations, they may also find it helpful to read through the examples for each foundation. If this is the students’ first exposure to the preschool learning foundations, be
sure to point out that while the examples “. . . suggest possible ways in which children may demonstrate the competency addressed by a foundation . . . they are not exhaustive (California Preschool Learning Foundations, Volume 3, p. xiv).”

Ask students to make a list of any new or unfamiliar vocabulary in the strands, substrands, or foundations. Also encourage students to identify any elements of the foundations for which they need additional explanations or examples. For instance, do students know what the symbols on a map mean? (Foundation 3.1, Substrand 3.0—Understanding the Physical World Through Drawings and Maps, Strand—Sense of Place) Can students list some simple directional language that preschoolers might use? (Foundation 1.1, Substrand 1.0—Navigating Familiar Locations, Strand—Sense of Place)

**Keeping it going**

Next ask students to create a word wall by writing their words on a whiteboard or chart paper or writing each word on a large Post-it® Note and then posting the notes on the wall. As a large group, review the words and ask for volunteers to give definitions. Instructors may also wish to point out the glossary on page 39 of the California Preschool Learning Foundations, Volume 3. Students could also post any elements they feel need more clarification. Again ask for volunteers to provide examples, definitions, or descriptions for these elements that help make the foundations clearer.

**Putting it together**

Introduce the next part of this learning experience by reminding students that parents might also have similar questions about the terms and concepts in the history–social science domain. Ask students to develop a short presentation for a parents’ or back-to-school night. The presentation should help parents understand what the history–social science foundations are and why they are part of the preschool program. If students are not already working in pairs or small groups, it is suggested that instructors have them form teams to develop their presentations. Encourage students to be creative and use visuals or other supports.
Taking it further
Provide time for each team to share its presentation with the rest of the class. After each presentation, ask the rest of the class to share three strengths or highlights and one suggestion for improvement.

The following questions can be used as a closing discussion:

- What words, phrases, or images from any of the presentations still resonate with you?
- What similarities did you see among the presentations? What stood out for you as unique?
- Why do you think it’s important for teachers to share the history–social science foundations with the parents of children in their classrooms?
- What could you use from these presentations for your future work with families of young children?

Another approach/way
Instead of developing a presentation, students could develop a class newsletter article or note to parents that describes some of the foundations and what their children will be learning about history and social sciences. Students may want to include photos or other graphics in these documents.

The following questions can be used as an individual reflection or class discussion:

- What terms or elements in the history–social science foundations were new or unfamiliar to you?
- Which foundations describe competencies that you feel will be easy to observe in children? Which ones may be more difficult to observe?
- Which foundations remind you of foundations in other domains? What does this tell you about how children learn?
- What will you take from this learning experience to your work on the history–social science foundations with young children?

Deeper Understanding
Ask students to write a review on a book that covers the overall topic of history–social science or a particular aspect identified in one of the substrands or foundations. Students can choose a book from the
In the References and Source Materials section (California Preschool Learning Foundations, Volume 3, pp. 40–47), recommendations from an instructor, bibliography or reference list in a journal article, or Internet search. The following books from the National Association for the Education of Young Children are also suggested:

- **Spotlight on Young Children and Social Studies** (2008), edited by Derry Koralek and Gayle Mindes. National Association for the Education of Young Children.
- **Active Experiences for Active Children: Social Studies (2nd ed.)** (2005), by Carol Seefeldt and Alice Galper. Pearson Education.

Instructors may wish to develop a list of books that students can choose from rather than have them identify one on their own.

Instructors may also want to provide students with some guidelines for writing their review. The following elements* are suggested:

- Full citation for the book
- Background of the author
- Central theme of the book and key ideas
- How the theme and key ideas are supported in the book
- Student’s evaluation of the book as a resource for understanding children’s acquisition of skills and knowledge described in the history–social science foundations

*Book review elements are based on the description for writing book reviews from the Purdue Online Writing Lab [http://owl.english.purdue.edu/owl/resource/704/1/](http://owl.english.purdue.edu/owl/resource/704/1/) (accessed January 6, 2014).
# History–Social Science

## Self and Society

### 1.0 Culture and Diversity

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Exhibit developing cultural, ethnic, and racial identity and understand relevant language and cultural practices. Display curiosity about diversity in human characteristics and practices, but prefer those of their own group.</td>
<td>1.1 Manifest stronger cultural, ethnic, and racial identity and greater familiarity with relevant language, traditions, and other practices. Show more interest in human diversity, but strongly favor characteristics of their own group.</td>
</tr>
</tbody>
</table>

### 2.0 Relationships

| 2.1 Interact comfortably with many peers and adults; actively contribute to creating and maintaining relationships with a few significant adults and peers. | 2.1 Understand the mutual responsibilities of relationships; take initiative in developing relationships that are mutual, cooperative, and exclusive. |

### 3.0 Social Roles and Occupations

| 3.1 Play familiar adult social roles and occupations (such as parent, teacher, and doctor) consistent with their developing knowledge of these roles. | 3.1 Exhibit more sophisticated understanding of a broader variety of adult roles and occupations, but uncertain how work relates to income. |

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### Becoming a Preschool Community Member (Civics)

#### 1.0 Skills for Democratic Participation

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Identify as members of a group, participate willingly in group activities, and begin to understand and accept responsibility as group members, although assistance is required in coordinating personal interests with those of others.</td>
<td>1.1 Become involved as responsible participants in group activities, with growing understanding of the importance of considering others’ opinions, group decision making, and respect for majority rules and the views of group members who disagree with the majority.</td>
</tr>
</tbody>
</table>

#### 2.0 Responsible Conduct

| 2.1 Strive to cooperate with group expectations to maintain adult approval and get along with others. Self-control is inconsistent, however, especially when children are frustrated or upset. | 2.1 Exhibit responsible conduct more reliably as children develop self-esteem (and adult approval) from being responsible group members. May also manage others’ behavior to ensure that others also fit in with group expectations. |

#### 3.0 Fairness and Respect for Other People

| 3.1 Respond to the feelings and needs of others with simple forms of assistance, sharing, and turn-taking. Understand the importance of rules that protect fairness and maintain order. | 3.1 Pay attention to others’ feelings, more likely to provide assistance, and try to coordinate personal desires with those of other children in mutually satisfactory ways. Actively support rules that protect fairness to others. |

#### 4.0 Conflict Resolution

| 4.1 Can use simple bargaining strategies and seek adult assistance when in conflict with other children or adults, although frustration, distress, or aggression also occurs. | 4.1 More capable of negotiating, compromising, and finding cooperative means of resolving conflict with peers or adults, although verbal aggression may also result. |
## Sense of Time
*(History)*

### 1.0 Understanding Past Events

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Recall past experiences easily and enjoy hearing stories about the past, but require adult help to determine when past events occurred in relation to each other and to connect them with current experience.</td>
<td>1.1 Show improving ability to relate past events to other past events and current experiences, although adult assistance continues to be important.</td>
</tr>
</tbody>
</table>

### 2.0 Anticipating and Planning Future Events

| 2.1 Anticipate events in familiar situations in the near future, with adult assistance. | 2.1 Distinguish when future events will happen, plan for them, and make choices (with adult assistance) that anticipate future needs. |

### 3.0 Personal History

| 3.1 Proudly display developing skills to attract adult attention and share simple accounts about recent experiences. | 3.1 Compare current abilities with skills at a younger age and share more detailed autobiographical stories about recent experiences. |

### 4.0 Historical Changes in People and the World

| 4.1 Easily distinguish older family members from younger ones (and other people) and events in the recent past from those that happened “long ago,” although do not readily sequence historical events on a timeline. | 4.1 Develop an interest in family history (e.g., when family members were children) as well as events of “long ago,” and begin to understand when these events occurred in relation to each other. |

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# Sense of Place

**(Geography and Ecology)**

### 1.0 Navigating Familiar Locations

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Identify the characteristics of familiar locations such as home and school, describe objects and activities associated with each, recognize the routes between them, and begin using simple directional language (with various degrees of accuracy).</td>
<td>1.1 Comprehend larger familiar locations, such as the characteristics of their community and region (including hills and streams, weather, common activities) and the distances between familiar locations (such as between home and school), and compare their home community with those of others.</td>
</tr>
</tbody>
</table>

### 2.0 Caring for the Natural World

| 2.1 Show an interest in nature (including animals, plants, and weather) especially as children have direct experience with them. Begin to understand human interactions with the environment (such as pollution in a lake or stream) and the importance of taking care of plants and animals. | 2.1 Show an interest in a wider range of natural phenomena, including those not directly experienced (such as snow for a child living in Southern California), and are more concerned about caring for the natural world and the positive and negative impacts of people on the natural world (e.g., recycling, putting trash in trash cans). |

### 3.0 Understanding the Physical World Through Drawings and Maps

| 3.1 Can use drawings, globes, and maps to refer to the physical world, although often unclear on the use of map symbols. | 3.1 Create their own drawings, maps, and models; are more skilled at using globes, maps, and map symbols; and use maps for basic problem solving (such as locating objects) with adult guidance. |
## Marketplace (Economics)

### 1.0 Exchange

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Understand ownership, limited supply, what stores do, give-and-take, and payment of money to sellers. Show interest in money and its function, but still figuring out the relative value of coins.</td>
<td>1.1 Understand more complex economic concepts (e.g., bartering; more money is needed for things of greater value; if more people want something, more will be sold).</td>
</tr>
</tbody>
</table>

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History–Social Science

Strands

- Self and Society
- Becoming a Preschool Member (Civics)
- Sense of Time (History)
- Sense of Place (Geography and Ecology)
- Marketplace (Economics)
History–Social Science

**Self and Society:** centers on culture and diversity, relationships, and social roles and occupations.

**Becoming a Preschool Community Member (Civics):** pertains to skills for democratic participation, responsible conduct, fairness and respect for other people, and conflict resolution.

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History–Social Science

**Sense of Time (History):** includes understanding past events, anticipating and planning future events, personal history, and historical changes in people and the world.
**History–Social Science**

**Sense of Place (Geography and Ecology):** covers navigating familiar locations, caring for the natural world, and understanding the physical world through drawings and maps.

**Marketplace (Economics):** focuses on the economic concept of exchange.

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**History–Social Science**

**Self and Society**

1.0  Culture and Diversity
2.0  Relationships
3.0  Social Roles and Occupations
History–Social Science

**Becoming a Preschool Community Member (Civics)**

1.0  Skills for Democratic Participation  
2.0  Responsible Conduct  
3.0  Fairness and Respect for Other People  
4.0  Conflict Resolution

---

**History–Social Science**

**Sense of Time (History)**

1.0  Understanding Past Events  
2.0  Anticipating and Planning Future Events  
3.0  Personal History  
4.0  Historical Changes in People and the World
History–Social Science

**Sense of Place (Geography and Ecology)**

1.0 Navigating Familiar Locations
2.0 Caring for the Natural World
3.0 Understanding the Physical World Through Drawings and Maps

**Marketplace (Economics)**

1.0 Exchange
History–Social Science

- What words, phrases, or images from the presentations resonated with you?
- What similarities did you see? What stood out for you as unique?
- Why do you think it’s important to share the history–social science foundations with the parents of children in their classrooms?
- What could you use from these presentations for your future work?

History–Social Science

- What terms or elements in the history–social science foundations were new or unfamiliar to you?
- Which foundations describe competencies that you feel will be easy to observe in children? Which ones may be more difficult to observe?
History–Social Science

- Which foundations remind you of foundations in other domains? What does this tell you about how children learn?
- What will you take from this learning experience to your work on the history–social science foundations with young children?

Resources:


- *Active Experiences for Active Children: Social Studies* (2nd ed.) (2005), by Carol Seefeldt and Alice Galper. Pearson Education.
History–Social Science


History–Social Science

History–Social Science

Review a book and include:

• Full citation
• Background of the author
• Central theme of the book and key ideas
• How the theme and key ideas are supported in the book

History–Social Science

Review a book and include:

• Your evaluation of the book as a resource for understanding children’s acquisition of skills and knowledge described in the history–social science foundations
History–Social Science:  
Linking the Preschool Learning Foundations and the Kindergarten History–Social Science Content Standards

Focus Statement

Students become familiar with the California Department of Education’s History–Social Science Content Standards for California Public Schools, Kindergarten Through Grade Twelve (California Department of Education, 2000) and explore their relationship to the history–social science foundations in the California Preschool Learning Foundations, Volume 3.

Curriculum Alignment Project (CAP) Student Learning Outcomes

The Curriculum Alignment Project’s (CAP) lower division eight courses and student learning outcomes are mapped onto each instructional guide learning experience. See Appendix A for the specific student learning outcomes, objectives, and examples of course content and topics for the courses listed below.

- Child Growth and Development
- Introduction to Curriculum
- Principles and Practices of Teaching Young Children
- Practicum-Field Experience

Instructional Methodologies

- Categorizing
- Class discussion
- Pairs or small group
- Reflective discussion
- Short paper

California Early Childhood Educator Competency Areas to Consider

The Faculty Initiative Project will undertake a comprehensive process in the future to map the content of the instructional guides to the California Department of Education, Early Education and Support Division’s California Early Childhood Educator Competencies. The “Competency Areas to Consider” below are listed in this instructional
guide as a preliminary exploration of how particular competency areas might be addressed through these learning experiences.

- Child Development and Learning
- Learning Environments and Curriculum
- Leadership in Early Childhood Education
- Professionalism
- Administration and Supervision
History–Social Science:
Linking the Preschool Learning Foundations and the Kindergarten History–Social Science Content Standards

Before You Start

In this learning experience, students have an opportunity to explore the California Department of Education’s *History–Social Science Content Standards for California Public Schools, Kindergarten Through Grade Twelve* (California Department of Education, 2000) for kindergarten and their relationship to the foundations in the history–social science domain. Although students may be focusing their preservice and professional careers at the preschool level, it is important for them to have some familiarity with the kindergarten content standards because this domain’s foundations were developed in relation to the standards. “The goal of the California Department of Education (CDE) in developing these [history–social science] foundations is to describe the knowledge and skills that are typical of preschool children who make progress toward readiness for kindergarten (California Preschool Learning Foundations, Volume 3, p. 1).”

Because students will need access to the content standards, instructors may want to remind them that they can download the standards from the California Department of Education’s Web page that provides all the current content standards [http://www.cde.ca.gov/be/st/ss/](http://www.cde.ca.gov/be/st/ss/). The *History–Social Science Content Standards for California Public Schools, Kindergarten Through Grade Twelve* (California Department of Education, 2000) were adopted by the California State Board of Education in 1998.

In this learning experience, instructors also can ask students to compare the history–social science foundations in the *California Preschool Learning Foundations, Volume 3* with the ten themes from the *National Curriculum Standards for Social Studies: A Framework for Teaching, Learning, and Assessment* (National Council for the Social Studies, 2010). A copy of the executive summary of these national standards can be downloaded at [http://www.socialstudies.org/standards/execsummary](http://www.socialstudies.org/standards/execsummary). A more detailed discussion of the themes from the full publication is on the National Council on Social Studies Web site, [http://www.socialstudies.org/standards/strands](http://www.socialstudies.org/standards/strands). If this second resource is also used, it will be important to recognize and to support students in understanding that the first part of this learning experience explores the alignment with a key California early learning resource and the “Taking it further” section looks at a key national early learning resource.

Two handouts are included with this learning experience. Handout 1 is to be used in comparing the California kindergarten content standards with the learning foundations. Handout 2 is for use in the comparison of the national curriculum social studies standards.
Appendix B of the *California Preschool Learning Foundations, Volume 3* is “An Overview of the Alignment of the California Preschool Learning Foundations with Key Early Education Resources.” This is a summary of an alignment document published by the California Department of Education that shows the alignment of all domains of the foundations to three other key California early learning resources, including the kindergarten content standards, and to the *Head Start Early Learning and Development Framework*. Table 11 on pages 155–156 shows the alignment between the history–social science foundations at the strand and substrand levels and the kindergarten content standards, as well as to the *California Infant/Toddler Development Foundations*.

There is a learning experience in this instructional guide, titled “Exploring the Overview of the Alignment of the California Preschool Learning Foundations with Key Early Education Resources,” that will support students in exploring all the alignment materials in Appendix B of the *California Preschool Learning Foundations, Volume 3* and guide them through the alignment of California foundations in all domains to the other three resources. Therefore, please keep in mind that this learning experience described in the “Active Learning” below relates only to the history–social science foundations and how they are aligned to a specific California resource, the *History–Social Science Content Standards for California Public Schools* (Kindergarten, 1998) and a specific national resource, the *National Curriculum Standards for Social Studies: A Framework for Teaching, Learning, and Assessment* (National Council for the Social Studies, 2010).

Students will be asked to review and compare two sets of materials: the kindergarten content standards of the *History–Social Science Content Standards for California Public Schools, Kindergarten Through Grade Twelve* (California Department of Education, 2000) and the history–social foundations in the *California Preschool Learning Foundations, Volume 3*.

**Getting it started**

Ask students to read pages 1–3 of the *History–Social Science Content Standards for California Public Schools, Kindergarten Through Grade Twelve*, which includes descriptions of the content standards for kindergarten. Then lead the students in a discussion to identify the key knowledge that children acquire during kindergarten. Be sure that the students have identified the six standards and the items under Standards K.1, K.4, and K.6. These items represent specific aspects or essential components of the overarching standard.
Keeping it going
Continue the learning experience by showing students Handout 1 or having them create a similar grid. Students can do this learning experience individually as well as in pairs or small groups. Ask the students to note that the kindergarten content standards are across the top of the pages with space under each standard labeled “Strand(s), Substrand(s), & Foundation(s).” Ask the students to review the history–social science foundations and list the foundations that are linked to one or more of the kindergarten content standards. For example, foundation 3.1 in the Fairness and Respect for Other People substrand of the Becoming a Preschool Community Member (Civics) strand is very similar to item 1 under the K.1 standard, “Students understand that being a good citizen involves acting in certain ways.” Students would write the strand, substrand, and foundation number, including the appropriate age range(s), in the blank column under item 1.

<table>
<thead>
<tr>
<th>K.1 Students understand that being a good citizen involves acting in certain ways.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Follow rules, such as sharing and taking turns, and know the consequences of breaking them.</td>
</tr>
<tr>
<td>Strand(s), substrand(s), &amp; foundation(s):</td>
</tr>
<tr>
<td>Strand – Becoming a Preschool Community Member (Civics)</td>
</tr>
<tr>
<td>Substrand – 3.0 Fairness and Respect for Other People</td>
</tr>
<tr>
<td>Foundation – 3.1, 48 and 60 months of age</td>
</tr>
</tbody>
</table>

Putting it together
If the students have worked individually in completing their grids, ask them to compare their grids with one or more students. Encourage them to discuss any differences in the foundations they listed for specific standards.

If the students worked in pairs or small groups, ask students to share their responses with the whole class. Depending on the size of the class and the amount of class time available, each pair or group could take a turn sharing the foundations it listed for one of the standards until all the standards have been discussed. Again
encourage students to discuss any differences in the foundations ascribed to each standard.

**Taking it further**
The *National Curriculum Standards for Social Studies: A Framework for Teaching, Learning, and Assessment* (National Council for the Social Studies, 2010) was also cited as a resource in the development of the history–social science foundations. The ten themes from the National Council for Social Studies standards are listed here and on page 2 of the *California Preschool Learning Foundations, Volume 3*:

- Culture
- Time, continuity, and change
- People, places, and environments
- Individual development and identity
- Individuals, groups, and institutions
- Power, authority, and governance
- Production, distribution, and consumption
- Science, technology, and society
- Global connections
- Civic ideals and practices


Review with students the ten themes developed by the National Council for the Social Studies as part of its *National Curriculum Standards for Social Studies: A Framework for Teaching, Learning, and Assessment* and the purposes of these themes.

Next provide students with Handout 2 or ask students to draw a matrix similar to the one they completed for the comparison of the kindergarten content standards and foundations. This time the ten themes are written across the top of the pages instead of the content standards, with space under each theme to note a few bullet points. Students can work individually or in small groups.

First ask students to identify a few key points from each theme that have applicability for preschool-age children. Then they can identify
strands, substrands, and foundations that align or link with one or more themes. After students have completed their comparisons, provide time for them to share with another student or group of students or as a whole class.

The following reflection questions can be used with this section of the learning experience:

- What stood out for you from the ten themes from the *National Curriculum Standards for Social Studies: A Framework for Teaching, Learning, and Assessment*?

- Which themes seemed somewhat familiar to you? Were there themes that surprised you when thinking about their applicability to preschoolers? Which themes were easier or more difficult to link with the history–social science learning foundations?

- What common threads can you find among the themes from the *National Curriculum Standards for Social Studies*, the California history and social science content standards, and the history–social science learning foundations?

- What aspects of the ten themes might you apply to your work with preschool children and their families?

**Another approach/way**

Instead of having students complete the whole grid, you may choose to divide the class into small groups and assign each group a certain number of the kindergarten standards and subitems. Then after each group presents its findings, the rest of the class could ask questions and/or suggest additional foundations.

This learning experience can be concluded with a class discussion of the following questions:

- What stood out for you from the comparison of the *History–Social Science Content Standards for California Public Schools, Kindergarten Through Grade Twelve* and the history–social science foundations in the *California Preschool Learning Foundations, Volume 3*?
- What were some of the main similarities and differences between the standards and the foundations? What might be some reasons for these similarities and differences?
- Why do you think it’s important for preschool teachers to be knowledgeable about the kindergarten content standards for history–social science?
- What are key ideas from this learning experience that you’ll keep in mind while working as a preschool teacher?

Other states also have content standards in social studies for prekindergarten or kindergarten. Ask students to identify standards from another state and compare those standards with California’s kindergarten history–social science content standards. You may ask students to write a short paper or prepare a class presentation that includes the following elements:

- Background of the development of the other state’s standards
- Similarities and differences between the two sets of standards
- Strengths in each set of standards
- Alignment of the other state’s standards with the history–social science foundations in the California Preschool Learning Foundations, Volume 3

There is a note in the References and Source Materials section of the California Preschool Learning Foundations, Volume 3 (page 47) that early childhood education standards from Florida, Georgia, Hawaii, Illinois, Kentucky, Massachusetts, Michigan, Texas, and Washington were part of the background preparation for California’s history–social science foundations.
### Linking the History–Social Science Content Standards for California Public Schools, Kindergarten Through Grade Twelve, and the California Preschool Learning Foundations, Volume 3

<table>
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<th>K.1 Students understand that being a good citizen involves acting in certain ways.</th>
<th>K.2 Students recognize national and state symbols and icons such as the national and state flags, the bald eagle, and the Statue of Liberty.</th>
<th>K.3 Students match simple descriptions of work that people do and the names of related jobs at the school, in the local community, and from historical accounts.</th>
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<td>1. Follow rules, such as sharing and taking turns, and know the consequences of breaking them.</td>
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**Strand(s), substrand(s), & foundation(s):**
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</tr>
</thead>
<tbody>
<tr>
<td><strong>K.4 Students compare and contrast the locations of people, places, and environments and describe their characteristics.</strong></td>
</tr>
<tr>
<td>1. Determine the relative locations of objects using the terms near/far, left/right, and behind/in front.</td>
</tr>
<tr>
<td>2. Distinguish between land and water on maps and globes and locate general areas referenced in historical legends and stories.</td>
</tr>
<tr>
<td>3. Identify traffic symbols and map symbols (e.g., those for land, water, roads, cities.)</td>
</tr>
<tr>
<td>4. Construct maps and models of neighborhoods incorporating such structures as police and fire stations, airports, banks, hospitals, harbors, supermarkets, homes, places of worship, and transportation lines.</td>
</tr>
<tr>
<td>5. Demonstrate familiarity with the school's layout, environs, and the jobs people do there.</td>
</tr>
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**K.4 Students compare and contrast the locations of people, places, and environments and describe their characteristics.**

1. Determine the relative locations of objects using the terms near/far, left/right, and behind/in front.

2. Distinguish between land and water on maps and globes and locate general areas referenced in historical legends and stories.

3. Identify traffic symbols and map symbols (e.g., those for land, water, roads, cities.)

4. Construct maps and models of neighborhoods incorporating such structures as police and fire stations, airports, banks, hospitals, harbors, supermarkets, homes, places of worship, and transportation lines.

5. Demonstrate familiarity with the school's layout, environs, and the jobs people do there.

**Strand(s), substrand(s), & foundation(s):**
### Linking the History–Social Science Content Standards for California Public Schools, Kindergarten Through Grade Twelve, and the California Preschool Learning Foundations, Volume 3

<table>
<thead>
<tr>
<th>K.5 Students put events in temporal order using a calendar, placing days, weeks, and months in proper order.</th>
<th>K.6 Students understand that history relates to events, people, and places of other times.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strand(s), substrand(s), &amp; foundation(s):</strong></td>
<td>1. Identify the purposes of, and the people and events honored in, commemorative holidays, including the human struggles that were the basis for the events (e.g., Thanksgiving, Independence Day, Washington’s and Lincoln’s Birthdays, Martin Luther King Jr. Day, Memorial Day, Labor Day, Columbus Day, Veterans Day)</td>
</tr>
<tr>
<td></td>
<td>2. Know the triumphs in American legends and historical accounts through the stories of such people as Pocahontas, George Washington, Booker T. Washington, Daniel Boone, and Benjamin Franklin.</td>
</tr>
<tr>
<td></td>
<td>3. Understand how people lived in earlier times and how their lives would be different today (e.g., getting water from a well, growing food, making clothing, having fun, forming organizations, living by rules and laws).</td>
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<td></td>
<td><strong>Strand(s), substrand(s), &amp; foundation(s):</strong></td>
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<td><strong>Strand(s), substrand(s), &amp; foundation(s):</strong></td>
</tr>
</tbody>
</table>
Instructions: After reviewing the ten themes from the *National Curriculum Standards for Social Studies*, list some key points that apply to preschool children for each theme. Then identify some foundations from the history–social science domain that relate to each theme.

<table>
<thead>
<tr>
<th>Theme 1: Culture</th>
<th>Theme 2: Time, continuity, and change</th>
<th>Theme 3: People, places, and environments</th>
<th>Theme 4: Individual development and identity</th>
<th>Theme 5: Individuals, groups, and institutions</th>
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</table>
### Linking the National Curriculum Standards for Social Studies and the California Preschool Learning Foundations, Volume 3

<table>
<thead>
<tr>
<th>Theme 6: Power, authority, and governance</th>
<th>Theme 7: Production, distribution, and consumption</th>
<th>Theme 8: Science, technology, and society</th>
<th>Theme 9: Global connections</th>
<th>Theme 10: Civic ideals and practices</th>
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History–Social Science

The preschool learning foundations for the history–social science domain are aligned with:

- **History–Social Science Content Standards for California Public Schools** (California Department of Education, 2000).
History–Social Science

The preschool learning foundations for the history–social science domain are aligned with:


http://www.cde.ca.gov/be/st/ss/index.asp
History–Social Science

http://www.socialstudies.org/standards

Summary: California Kindergarten History–Social Science Content Standards

Learning and Working Now and Long Ago

1. Students understand that being a good citizen involves acting in certain ways.
2. Students recognize national and state symbols and icons such as the national and state flags, the bald eagle, and the Statue of Liberty.
Summary: California Kindergarten History–Social Science Content Standards

3. Students match simple descriptions of work that people do and the names of related jobs at the school, in the local community, and from historical accounts.

4. Students compare and contrast the locations of people, places, and environments and describe their characteristics.

5. Students put events in temporal order using a calendar, placing days, weeks, and months in proper order.

6. Students understand that history relates to events, people, and places of other times.
Preschool History–Social Science 
Foundations

**Self and Society**

1.0  Culture and Diversity  
2.0  Relationships  
3.0  Social Roles and Occupations

Preschool History–Social Science 
Foundations

**Becoming a Preschool Community Member (Civics)**

1.0  Skills for Democratic Participation  
2.0  Responsible Conduct  
3.0  Fairness and Respect for Other People  
4.0  Conflict Resolution
Preschool History–Social Science Foundations

**Sense of Time (History)**

1.0 Understanding Past Events
2.0 Anticipating and Planning Future Events
3.0 Personal History
4.0 Historical Changes in People and the World

**Sense of Place (Geography and Ecology)**

1.0 Navigating Familiar Locations
2.0 Caring for the Natural World
3.0 Understanding the Physical World Through Drawings and Maps

**Marketplace (Economics)**

1.0 Exchange
### History–Social Science

Linking the History–Social Science Content Standards for California Public Schools, Kindergarten Through Grade Twelve, and the California Preschool Learning Foundations, Volume 3

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<th>K.1 Students understand that living a good citizen involves acting in certain ways.</th>
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<th>3. Know basic social behaviors of characters in stories from times past and understand the consequences of the actions of characters.</th>
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**History–Social Science:**

http://www.socialstudies.org/standards
Themes: National Council for Social Studies Standards

- Culture
- Time, continuity, and change
- People, places, and environments
- Individual development and identity
- Individuals, groups, and institutions

Themes: National Council for Social Studies Standards

- Power, authority, and governance
- Production, distribution, and consumption
- Science, technology, and society
- Global connections
- Civic ideals and practices
What stood out for you from the ten themes from the *National Curriculum Standards for Social Studies: A Framework for Teaching, Learning, and Assessment*?

Which themes seemed somewhat familiar? Were there themes that surprised you when thinking about their applicability to preschoolers?
History–Social Science

- Which themes were easier or more difficult to link with the history–social science learning foundations?

- What common threads can you find among the themes from the *National Curriculum Standards for Social Studies*, the California history and social science content standards, and the history–social science learning foundations?

History–Social Science

- What aspects of the ten themes might you apply to your work with preschool children and their families?
History–Social Science

- What stood out for you from the comparison of the *History–Social Science Content Standards for California Public Schools, Kindergarten Through Grade Twelve* and the history–social science foundations in the *California Preschool Learning Foundations, Volume 3*?

History–Social Science

- What were some of the main similarities and differences between the standards and the foundations? What might be some reasons for these similarities and differences?
History—Social Science

- Why do you think it’s important for preschool teachers to be knowledgeable about the kindergarten content standards for history—social science?

- What key ideas from this learning experience will you keep in mind in your work as a preschool teacher?

History—Social Science

Compare standards from another state with California’s kindergarten history—social science content standards.

Include:

- Background of the development of the other state’s standards
- Similarities and differences
- Strengths in each set of standards
- Alignment of the other state’s standards with the history—social science foundations
History–Social Science: Reviewing the Research and Rationale for the History–Social Science Domain

Focus Statement

Students become familiar with the rationale and research base for the history–social science foundations by reviewing and discussing key concepts in the introductory material to the domain, exploring other references and resources, and doing panel presentations on their findings.

Curriculum Alignment Project (CAP) Student Learning Outcomes

The Curriculum Alignment Project’s (CAP) lower division eight courses and student learning outcomes are mapped onto each instructional guide learning experience. See Appendix A for the specific student learning outcomes, objectives, and examples of course content and topics for the courses listed below.

- Child Growth and Development
- Child, Family and Community
- Principle and Practices of Teaching Young Children
- Health, Safely and Nutrition
- Teaching in a Diverse Society
- Practicum-Field Experience

Instructional Methodologies

- Class discussion
- Class presentation (student panel presentation)
- Pairs or small groups
- Personal reflection
- Reflective discussion
- Short paper or report
California Early Childhood Educator Competency Areas to Consider

The Faculty Initiative Project will undertake a comprehensive process in the future to map the content of the instructional guides to the California Department of Education, Early Education and Support Division’s *California Early Childhood Educator Competencies*. The “Competency Areas to Consider” below are listed in this instructional guide as a preliminary exploration of how particular competency areas might be addressed through these learning experiences.

- Child Development and Learning
- Culture, Diversity, and Equity
- Relationships, Interactions, and Guidance
- Family and Community Engagement
- Health, Safety, and Nutrition
- Professionalism
Before You Start

“The most important purpose of these foundations is to help early childhood educators create environments and interactions that help young children understand themselves in a wonderfully expanding world (California Preschool Learning Foundations, Volume 3, p. 7).”

The introduction to the history–social science domain in the California Preschool Learning Foundations, Volume 3 states the foundations for this domain are “. . . based on the assumption that competencies in a wide variety of areas prepare children for school. Education prepares children for a broad range of adult responsibilities and goals; therefore children’s appreciation for history, culture, geography, economics, civics and citizenship, the global environment, and individual identity in a cultural and racial context is essential to their education, as are basic capacities in language, mathematics, and the physical sciences (p. 1).” Many students may not have had much experience thinking about children’s acquisition of knowledge and skills in these areas. And some of the substrands or foundations, such as the substrand on Relationships or the foundation “Play familiar adult social roles and occupations (such as parent, teacher, and doctor) consistent wit their developing knowledge of these roles” may be more familiar to students as elements of the social-emotional development domain.

This learning experience is designed to help students become familiar with the content of history and social sciences at the preschool level. In addition to becoming familiar with the competencies in the foundations, students need to understand the developmental nature of the foundations and the influence of children’s “. . . access to appropriate social interactions, experiences, and environments that normally support healthy development” (California Preschool Learning Foundations, Volume 3, p. 5) in learning the behaviors and concepts described in the history–social science foundations. Providing an opportunity for students to review and discuss the key concepts in the domain’s introductory pages and the Bibliographic Notes (pp. 23–38) will help students acquire this understanding.

In this learning experience, students will develop panel presentations on the material for each strand in the Bibliographic Notes section. Faculty may wish to do this learning experience over two class sessions so that students have time out of class to prepare.
Students will be asked to become familiar with the introductory material in the history–social science foundations of the California Preschool Learning Foundations, Volume 3:

- Scope of the Foundations (pp. 1–4)
- Purpose of the Foundations (pp. 4–5)
- Understanding the Foundations (pp. 5–6)
- Learning About History–Social Science (pp. 6–7)

It may also be helpful for all students to review the glossary on page 39. Depending on the amount of time instructors plan for this learning experience, faculty may wish to have students review the introductory pages prior to class and then be prepared to identify and discuss key points in class.

Groups of students will be assigned to one of the sections on each strand that are in the Bibliographic Notes:

- Self and Society (pp. 23–26)
- Becoming a Preschool Community Member (Civics) (pp. 26–30)
- Sense of Time (History) (pp. 30–34)
- Sense of Place (Geography and Ecology) (pp. 34–37)
- Marketplace (Economics) (pp. 37–38)

Getting it started
Begin by asking the students to read the introductory material in the history–social science domain. Then conduct a class discussion of the key points the students identified in the introductory material. Encourage them to comment on information that was new to them, including terms from the glossary, and what might be the benefits and challenges of observing and thinking about children’s behaviors in each strand and substrand. Ask students to also share at least one or two questions that surfaced for them during their review.

Then ask students to select two of the five strands that they are

Online Options
Students could prepare key points from their reading and post these online for review by the whole class as preparation for an in-class discussion.
particularly interested in learning more about; they could consider one strand their first choice and the other their second choice. Ask students to form five teams by finding other students with the same first choice. If the students do not self-select into five groups of approximately the same number, ask if one or more students as needed could move to a group of their second choice that needs additional members.

**Keeping it going**
Ask each team to read and discuss the bibliographic notes for its strand, noting the key messages, research and other sources, strand’s foundations, and a few examples from the foundations of their own experience. After outlining these elements, ask the team to prepare a panel presentation. One student will be the panel moderator, and the other students will be panelists. The students can decide how the panelists will present the information, but instructors may wish to suggest some interaction among the panelists. For example, the moderator can pose one or two predetermined questions that each of the panelists responds to.

**Putting it together**
The amount of time for the panel presentations will, of course, depend on the class schedule. It is suggested that approximately 20–25 minutes be allocated for each panel. There should also be time for the rest of the class to ask a few questions.

**Taking it further**
Instructors may wish to have the class develop some questions that the panelists answer as part of their presentation. One way to put together a list of questions is to start with the questions the students raised in their review of the introductory material as described in the “Getting it started” section.

Write all the questions on a whiteboard or large sheet of paper so that the students can easily read them. Ask students to identify any questions that seem very similar and then group and rewrite them as one question. Students can either vote to determine three to five...
questions for the panels or use another consensus decision-making process to select the questions.

**Online Options**

If the instructor decides to ask students to develop questions for the panels and has document-sharing capability, the instructor could select the questions through an online discussion. Students could also submit questions online, and a small group of students could be given the responsibility of selecting the final questions.

**Another approach/way**

Instead of each group of students doing its own panel presentation, a panel could be composed of one student from each group. Each group would work as a team to prepare the key messages, research summaries, and responses to the panel questions and then select one of its members to be the panelist. The instructor may wish to serve as the moderator or ask another student to assume that role. The panelists would first provide a brief summary of some key points and research that their groups have identified. Then the panelists would be asked to respond to questions from the perspective of their strand.

**Reflection**

After all the panels have been presented, conclude the learning experience by asking students to individually respond to or engage in a class discussion on these questions:

- What information from the panels caught your attention or stood out for you?
- Which key messages or research findings were especially meaningful to you? Why?
- What new or different perspectives do you have? How have the panel presentations been helpful in developing these perspectives?
- What information do you want to remember as you use the history–social science foundations in your work with children and families?

**Deeper Understanding**

Ask students to select one substrand that they would like to explore further; the substrand could be from the strand they reviewed in their small group work or from a different strand. Encourage students to choose a topic that may have challenged some beliefs they held or raised some issues and perspectives they had never considered.
Students could then review at least three articles cited in the Bibliographic Notes section for the selected substrand and/or the References and Source Materials section (California Preschool Learning Foundations, Volume 3, pp. 40–47) and prepare a one- to two-page paper that includes the following points:

- Statement summarizing the focus of the paper and why the student selected that topic
- Research citations
- Summary of the research findings and key points
- Discussion of how the findings relate to the student’s increased understanding of specific foundations
History–Social Science

*California Preschool Learning Foundations, Volume 3:*
- Scope of the Foundations (pp. 1–4)
- Purpose of the Foundations (pp. 4–5)
- Understanding the Foundations (pp. 5–6)
- Learning About History–Social Science (pp. 6–7)
History–Social Science

Bibliographic Notes:
- Self and Society (pp. 23–26)
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History–Social Science: Learning Experience 6
http://www.wested.org/facultyinitiative/
History–Social Science

- What new or different perspectives do you have? How have the panel presentations been helpful in developing these perspectives?

- What information do you want to remember as you use the history–social science foundations in your work with children and families?

Choose a substrand, and review at least 3 articles from the Bibliographic Notes and/or the References and Source Materials section.

Prepare a 1–2 page paper, including:
- A statement summarizing the focus of the paper and why you selected the topic.
- Research citations.
- A summary of key points, research findings, and how the findings relate to your understanding of specific foundations.
Focus Statement

Students identify considerations related to children’s families, communities, and culture that can help students better understand how children might demonstrate the competencies described in the history–social science foundations.

Curriculum Alignment Project (CAP) Student Learning Outcomes

The Curriculum Alignment Project’s (CAP) lower division eight courses and student learning outcomes are mapped onto each instructional guide learning experience. See Appendix A for the specific student learning outcomes, objectives, and examples of course content and topics for the courses listed below.

- Child Growth and Development
- Child, Family and Community
- Principle and Practices of Teaching Young Children
- Observation and Assessment
- Health, Safely and Nutrition
- Teaching in a Diverse Society
- Practicum-Field Experience

Instructional Methodologies

- Brainstorming
- Class discussion
- Development of resource tool
- Lecture
- Notetaking outline or guide
- Pairs or small groups
- Personal reflection
- Reflective discussion
California Early Childhood Educator Competency Areas to Consider

The Faculty Initiative Project will undertake a comprehensive process in the future to map the content of the instructional guides to the California Department of Education, Early Education and Support Division’s *California Early Childhood Educator Competencies*. The “Competency Areas to Consider” below are listed in this instructional guide as a preliminary exploration of how particular competency areas might be addressed through these learning experiences.

- Child Development and Learning
- Culture, Diversity, and Equity
- Relationships, Interactions, and Guidance
- Family and Community Engagement
- Observation, Screening, Assessment, and Documentation
- Learning Environments and Curriculum
- Health, Safety, and Nutrition
History–Social Science:
Exploring the Impact of Family and Culture on Children’s Development of History–Social Science Knowledge and Skills

Before You Start

Children’s development of knowledge and skills in the history–social science domain, as in all other domains, is influenced and impacted by their family and cultural experiences. By identifying and examining the diversity of many of these experiences, students can increase their understanding of what children bring to the classroom setting that prepares them for learning in the five strands of this domain.

In this learning experience, students will identify questions and considerations that can help them learn about families’ beliefs and practices related to specific foundations. They will then consider how the information garnered from those questions and considerations can help them think about children’s growth in those foundations.

There are two approaches described for this learning experience. The first approach has students working in pairs or groups of three to develop a document that will be shared with the rest of the class. A class discussion is suggested after all students review all the documents. Therefore, there will need to be some provision for making copies of each document available to all students. If the class has file-sharing capability, students could post their documents for retrieval by the other students. Students would probably need outside-of-class time to write and post their papers.

The second approach involves students writing ideas on large sheets of paper posted around the room. Materials needed include 15 sheets of large paper such as flip chart paper, markers in dark colors, and tape that will not harm the walls.

If this is the students’ first exposure to the history–social science domain, it is suggested that the instructor provide a review of the introductory material through either a lecture or assigned reading. Because the strands, substrands, and foundations for this particular domain may not be familiar to some students, it will be important for them to have a basic understanding of the content before engaging in this learning experience.
If students are not familiar with the history–social science domain, it is suggested that the introductory material from the *California Preschool Learning Foundations, Volume 3* be introduced at the beginning of the session:

- Introduction (p. 1)
- Scope of the Foundations (pp. 1–4), especially the following descriptions of the strands found on page 3:
  - Self and Society (beginning to identify with how their family does things and understand that other families and people have ways of doing things that are different or similar to what their family does)
  - Civics (how to live with others and how rules work, such as taking turns to go down the slide)
  - History (events that happened in the past, even before they were born, such as when their mommy was a little girl)
  - Geography (the location of familiar places in relation to each other, such as knowing the way to preschool or that the park is across the street from the grocery store) and the different kinds of places where people live
  - Ecology (learning to take care of earth and animals [for example, not wasting water])
  - Economics (a beginning understanding of money and the exchange of things and services, such as groceries purchased at the store)
- Purpose of the Foundations (pp. 4–5)
- Understanding the Foundations (pp. 5–6)
- Glossary (p. 39)

It is suggested that students work with one or two partners on one set of foundations. In addition to the foundations, students can also review the Bibliographic Notes section for their assigned foundations. The 15 sets of foundations and pages for the notes are listed for the instructor’s reference:
<table>
<thead>
<tr>
<th>Strand</th>
<th>Substrand</th>
<th>Foundation</th>
<th>Pages</th>
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</thead>
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<tr>
<td>Self and Society</td>
<td>1.0 Culture and Diversity</td>
<td>1.1</td>
<td>8, 23–24</td>
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<td></td>
<td>2.0 Relationships</td>
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</tr>
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<td>Becoming a Preschool Community Member (Civics)</td>
<td>1.0 Skills for Democratic Participation</td>
<td>1.1</td>
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<td>Sense of Time (History)</td>
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<td></td>
<td>4.0 Historical Changes in People and the World</td>
<td>4.1</td>
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<td>Sense of Place (Geography and Ecology)</td>
<td>1.0 Navigating Familiar Locations</td>
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<td>2.0 Caring for the Natural World</td>
<td>2.1</td>
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<td></td>
<td>3.0 Understanding the Physical World Through Drawings and Maps</td>
<td>3.1</td>
<td>21, 36–37</td>
</tr>
<tr>
<td>Marketplace (Economics)</td>
<td>1.0 Exchange</td>
<td>1.1</td>
<td>22, 37–38</td>
</tr>
</tbody>
</table>
Getting it started
Ask students to find one or two partners with whom to explore one or more of the foundations. There are 15 foundations in the history–social science domain, so the instructor may choose to assign one foundation to each group, more than one foundation to each group, or more than one group to a foundation. Students then review their assigned foundation(s), including the examples, and the section in the Bibliographic Notes related to the substrand for their foundation(s). Students should review the foundations for both the 48 and 60 months of age.

Keeping it going
Each group of students is asked to brainstorm a list of questions and considerations related to a child’s family, community, and culture that they believe are important for understanding children’s knowledge and skills described in their foundation(s). For example, some of the considerations for the foundation 1.1 under the Self and Society strand, Culture and Diversity substrand might include these questions:

• How culturally, ethnically, and racially diverse is the child’s family? The community in which the child lives?
• What is the child’s home language? What languages has the child been exposed to in his home? In his community?
• What traditions and cultural practices has the child experienced in his family? In his community?
• What kinds of foods does the child typically eat at home? What are the family’s beliefs and practices around foods and meals?
• What opportunities has the child had to meet people outside his family and immediate neighborhood community? To participate in different community events? To travel outside the town or city in which he lives?

Examples for the foundation related to the substrand Caring for the Natural World might include these considerations:

• The extent of the child’s exposure to and experience with outdoor environments (e.g., parks, gardens, lakes, rivers, streams)
• Child’s exposure to animals such as pets and animals found at farms, zoos, ponds or streams, aquariums, aviaries, animal-related theme parks

Active Learning
• Child’s familiarity with plants in a home garden, community garden, park, botanical garden
• Range of weather where the child lives
• Child’s experience visiting or living in places with weather different from what she typically sees
• How much the child’s immediate family members talk about weather, animals, and different environments based on their daily experiences or on books, newspapers, magazines, and television shows
• The kind of recycling practices the family does and talks about

Encourage students to make their lists as comprehensive as possible. This first step is a brainstorming exercise, so it is suggested that they not spend a lot of time discussing their examples. Also, it may be helpful to remind students that these questions or considerations are not to imply any value or judgment about the family’s beliefs, practices, or circumstances. They are to provide a broader context for getting to know the children who may be in their preschool classes.

Putting it together
Each group next reviews its list and incorporates it into a one-page document that will be shared with the rest of the class. Each document should include the strand, substrand, and foundations as well as the list of considerations and questions.

Online Options
If the class has document-sharing capability, students could also complete this step online. If the class has file-sharing capability, each group could then post its document for
Taking it further
After reviewing all the documents, students can look for questions or considerations that cross all or most of the foundations. Encourage them to discuss what themes emerge and what overarching questions are suggested by these themes. Also, are there any additional questions that should be added to any of the lists? What are the primary implications of these questions and considerations when thinking about a specific child’s progress in developing the knowledge or skill described in the foundation?

Another approach/way
Instead of having students brainstorm their questions and considerations in small groups and develop documents to share, the instructor could use a carousel approach. If there is enough wall space in the classroom, the instructor could post 15 sheets of large paper around the room. Each sheet should have a foundation, substrand, and strand written on the top. To save space, just write the foundation number and a few key words for the foundation and substrand. Also, include the foundations for both age groups on one sheet.

Then ask students to individually or in pairs or triads position themselves in front of the sheets so that there are students by each sheet. Then give them approximately three to five minutes to brainstorm some questions or considerations for the foundations described on that sheet and quickly write them on the sheet. Call time after three to five minutes, and the students move to the next sheet. Depending on how much time is planned for this learning experience, the instructor can ask students to move to all 15 sheets or just a certain number of them. However, it is suggested that enough different students work on each foundation in order to have at least six to eight items for each one.

Ask for students to volunteer to read the items on each sheet until all the sheets have been reviewed. The instructor could then lead a discussion described in the “Taking it further” section.

Online Options
If the class has document-sharing capability, this carousel approach could be done by the whole class. Each foundation could be posted with approximately two minutes for the students to brainstorm ideas online.
Reflection

The following questions can be used as a concluding class discussion or for students’ individual reflection:

• Which questions or considerations from lists other than the one you developed stand out for you?
• Which questions or considerations surprised you?
• Which questions or considerations would help you develop the most insight into how a child is demonstrating skills and concepts for several foundations?
• How will you use these key questions or considerations in your work with children and families in supporting children’s development in the history–social science domain?

Deeper Understanding

Ask students to look at the examples for the foundation(s) they worked with in this learning experience. They could now brainstorm other examples for their assigned foundation that specifically relate to a child’s family, home, community, or cultural experience. Students should think about the considerations about family, community, and culture discussed in class, and they can also use actual experiences with children and families. If students draw from their work with children and families, they should be careful to observe confidentiality and not share any identifying information about a specific child or family. It may help students to pretend that they are preparing for a parent conference and think of things children might have shared about their life outside school that demonstrate a competency addressed by a foundation.

For example, one foundation in the Navigating Familiar Locations substrand of the Sense of Place (Geography and Ecology) strand is “Identify the characteristics of familiar locations such as home and school, describe objects and activities associated with each, recognize the routes between them, and begin using simple directional language (with varying degrees of accuracy).” The following examples illustrate how a child who lives part-time with two parents might demonstrate competency in that foundation:

• The child talks about where he sleeps when he’s with his mother and where he sleeps when he’s at his father’s home. He might also describe different activities he does when he is at each place.

• The child explains to a friend that when he’s living with his mother, she walks him to school and they go by the park. When
he stays with his father, they take the bus and it takes a longer time to get to school.

The same child may show his knowledge about the foundation “Anticipate events in familiar situations in the near future, with adult assistance” in these ways:

- The child explains to the teacher that his father is picking him up after school tomorrow and he’s staying with his father instead of his mother for a whole week because his mother is going on a business trip.

- The child announces during circle time that he and his mother are going to his favorite ice cream store when she comes back from her business trip.

Ask students to take turns sharing two or three examples they came up with for their foundation. As students present their examples, ask the other students to note what aspects of home, family, community, and culture children are bringing to their development of knowledge and skills in history–social science. Encourage students to be as specific as possible. For instance, from the examples provided in this section, it appears that the child has two parents and lives part-time with each parent—one kind of family structure.

After all the examples have been shared, recap the different aspects of home, family, community, and culture that the students identified. Based on the examples they developed, ask students if they think children’s family and cultural experiences seem to have more impact on some foundations than on others.
History–Social Science

*California Preschool Learning Foundations, Volume 3* overview:

- Scope of the Foundations (pp. 1–4)
- Purpose of the Foundations (pp. 4–5)
- Understanding the Foundations (pp. 5–6)
- Glossary (p. 39)
History–Social Science

**Strands**

- Self and Society
- Becoming a Preschool Member (Civics)
- Sense of Time (History)
- Sense of Place (Geography and Ecology)
- Marketplace (Economics)

**Self and Society:** centers on culture and diversity, relationships, and social roles and occupations

**Becoming a Preschool Community Member (Civics):** pertains to skills for democratic participation, responsible conduct, fairness and respect for other people, and conflict resolution
History–Social Science

**Sense of Time (History):** includes understanding past events, anticipating and planning future events, personal history, and historical changes in people and the world.

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History–Social Science

**Sense of Place (Geography and Ecology):** covers navigating familiar locations, caring for the natural world, and understanding the physical world through drawings and maps.

**Marketplace (Economics):** focuses on the economic concept of exchange.
History–Social Science

Self and Society

1.0 Culture and Diversity
2.0 Relationships
3.0 Social Roles and Occupations

Becoming a Preschool Community Member (Civics)

1.0 Skills for Democratic Participation
2.0 Responsible Conduct
3.0 Fairness and Respect for Other People
4.0 Conflict Resolution
History–Social Science

**Sense of Time (History)**
1.0 Understanding Past Events
2.0 Anticipating and Planning Future Events
3.0 Personal History
4.0 Historical Changes in People and the World

**Sense of Place (Geography and Ecology)**
1.0 Navigating Familiar Locations
2.0 Caring for the Natural World
3.0 Understanding the Physical World Through Drawings and Maps

**Marketplace (Economics)**
1.0 Exchange
History–Social Science

Bibliographic Notes:
• Self and Society (pp. 23–26)
• Becoming a Preschool Community Member (Civics) (pp. 26–30)
• Sense of Time (History) (pp. 30–34)
• Sense of Place (Geography and Ecology) (pp. 34–37)
• Marketplace (Economics) (pp. 37–38)

Brainstorm a list of questions and considerations related to a child’s family, community, and culture that you believe are important for understanding children’s knowledge and skills described in the foundations.
History–Social Science

• How culturally, ethnically, and racially diverse is the child’s family? The community in which the child lives?

• What is the child’s home language? What languages has the child been exposed to in his home? In his community?

History–Social Science

• What traditions and cultural practices has the child experienced in his family? In his community?

• What kinds of foods does the child typically eat at home? What are the family’s beliefs and practices around foods and meals?
History–Social Science

- What opportunities has the child had to meet people outside his family and immediate neighborhood community? To participate in different community events? To travel outside the town or city in which he lives?

- The extent of the child’s exposure to and experience with outdoor environments (e.g., parks, gardens, lakes, rivers, streams)

- Child’s exposure to animals such as pets and animals found at farms, zoos, ponds or streams, aquariums, aviaries, animal-related theme parks
History–Social Science

- Child’s familiarity with plants in a home garden, community garden, or park
- Child’s experience visiting or living in places with different types of weather

History–Social Science

- How much the child’s family members talk about weather, animals, and different environments, based on their daily experiences or books, newspapers, magazines, and television shows
- The kind of recycling practices the family does and talks about
History–Social Science

• What questions or considerations cross all or most of the foundations?

• What themes emerge and what overarching questions are suggested by these themes?

• Are there any additional questions that should be added?

History–Social Science

• What are the primary implications for these questions and considerations when thinking about a specific child’s progress in developing the knowledge or skill described in the foundation?
History–Social Science

- Which questions or considerations from lists other than the one you developed stand out for you?

- Which questions or considerations surprised you?

History–Social Science

- Which questions or considerations would help you develop the most insight into how a child is demonstrating skills and concepts for several foundations?
History–Social Science

- How will you use these key questions or considerations in your work with children and families in supporting children’s development in the history–social science domain?

- For the foundation(s), brainstorm some examples that relate to a child’s family, home, community, or cultural experience.
History–Social Science:
Identifying Family and Cultural Components in the History–Social Science Foundations

Focus Statement

Students hear from guest speakers or interview community members to learn more about different family, community, and cultural experiences that may impact children’s development of competencies described in the history–social science foundations.

Curriculum Alignment Project (CAP) Student Learning Outcomes

The Curriculum Alignment Project’s (CAP) lower division eight courses and student learning outcomes are mapped onto each instructional guide learning experience. See Appendix A for the specific student learning outcomes, objectives, and examples of course content and topics for the courses listed below.

• Child Growth and Development
• Child, Family and Community
• Introduction to Curriculum
• Principles and Practices of Teaching Young Children
• Observation and Assessment
• Teaching in a Diverse Society
• Practicum-Field Experience

Instructional Methodologies

• Brainstorming
• Class discussion
• Development of resource tool
• Interview
• Pairs or small groups
• Panel/guest speakers
• Personal reflection
• Reflective discussion
California Early Childhood Educator Competency Areas to Consider

The Faculty Initiative Project will undertake a comprehensive process in the future to map the content of the instructional guides to the California Department of Education, Early Education and Support Division’s California Early Childhood Educator Competencies. The “Competency Areas to Consider” below are listed in this instructional guide as a preliminary exploration of how particular competency areas might be addressed through these learning experiences.

- Child Development and Learning
- Culture, Diversity, and Equity
- Family and Community Engagement
- Observation, Screening, Assessment, and Documentation
- Professionalism
History–Social Science:
Identifying Family and Cultural Components in the History–Social Science Foundations

Before You Start

Children form a remarkably diverse population. They vary in their temperamental qualities, personality, family background, cultural heritage and values, economic resources, family structure, and other ways. Children in California are especially diverse in their cultural of origin. Culture is associated with family values and practices, language, and other characteristics that are directly related to the meaning of these foundations and their application to individual children, especially children who are English-language learners or from special populations . . . (California Preschool Learning Foundations, Volume 3, p. 6).

In this learning experience, students will become more familiar with the diversity of family and cultural backgrounds and experiences that children bring to their preschool programs by reading and discussing sections from the history–social science domain of the California Preschool Learning Foundations, Volume 3. It is suggested that speakers be invited to provide additional information on considerations for children in specific circumstances such as being in foster care, not having stable housing, or having a disability or special health care need. It may also be useful to have one or two speakers who are leaders in local ethnic communities who can address some of the issues related to the linguistic and cultural diversity of families who live nearby.

It may be helpful to provide copies of the history–social science foundations and the introductory pages from the California Preschool Learning Foundations, Volume 3 (pp. 1–7) to the speakers. Ask them to provide an overview of the children and families they work with, highlighting factors that specifically relate to some of the foundations and that students should consider in fostering children’s development in those foundations. If the instructor decides to have students prepare some questions for the panel, let the speakers know that there will also be questions from the class.

Students are asked to select questions for the panel by voting with sticky dots, so instructors could provide some kind of small stickers that students can use. Pieces of masking or other tape could also be used.
As suggested in Learning Experience 3 of this domain, “Piecing Together the History–Social Science Domain Content Puzzle,” it is important that students have a basic familiarity with the content of the strands, substrands, and foundations. If this is the first time students will be working with the history–social science domain, the information on the following pages from the *California Preschool Learning Foundations*, Volume 3 can provide this background:

- Introduction (p. 1)
- Scope of the Foundations (pp. 1–4), especially the following descriptions of the strands found on page 3:
  - Self and Society (beginning to identify with how their family does things and understand that other families and people have ways of doing things that are different or similar to what their family does)
  - Civics (how to live with others and how rules work, such as taking turns to go down the slide)
  - History (events that happened in the past, even before they were born, such as when their mommy was a little girl)
  - Geography (the location of familiar places in relation to each other, such as knowing the way to preschool or that the park is across the street from the grocery store) and the different kinds of places where people live
  - Ecology (learning to take care of earth and animals [for example, not wasting water])
  - Economics (a beginning understanding of money and the exchange of things and services, such as groceries purchased at the store)
- Purpose of the Foundations (pp. 4–5)
- Understanding the Foundations (pp. 5–6)
- Glossary (p. 39)

In this learning experience, students will also focus on the material on pages 5–6, beginning with the last paragraph on page 5 and continuing through the two columns on page 6.

**Getting it started**

Begin by asking students to read the paragraphs on pages 5–6 about the cultural, ethnic, and racial implications related to children’s development and the history–social science foundations. Depending
on the size of the class, students could discuss the paragraphs in small groups or as a whole group. If the students work in groups, allow time for them to share highlights from their discussions with the whole class. Some of the concepts presented may be new to students, so it is important to provide opportunities for questions, differing interpretations to be discussed, and key points to be clarified.

**Keeping it going**

Explain to students that a panel will be addressing the class on family and cultural considerations for some specific populations of children and families. As preparation for the panel, ask students to develop questions for the panelists related to their review and discussion of the foundations. Choose to have students develop questions individually or in groups and then come up with a final list for the panelists. One way to develop this list of questions is to write all the questions on chart paper or a whiteboard and then have students vote. Students are given three to five sticky dots each and then vote by placing their dots by the questions they choose. They can spread their dots among several questions or put all dots by one question—the choice is theirs. After deciding how many questions it is feasible to ask the panelists, the questions with the most dots are selected.

**Putting it together**

Introduce the panel and explain that the panelists will first present an overview of the children and families they work with, including an emphasis on characteristics that they feel are critical for understanding children’s backgrounds and experiences prior to and during their preschool years and the relationship of those characteristics to certain foundations in the history–social science domain. For example, children whose families are experiencing homelessness or temporary, irregular, or inadequate housing or children who are in foster care may not have had the same opportunities as children in more stable and consistent home environments for developing cultural, ethnic, and racial identity; learning to create and maintain relationships with a few significant adults and peers; anticipating events; becoming familiar with places regularly visited or routes; or learning about their family history.
Instructors may want to preface the guest speakers’ presentations by reminding students that the purpose of these presentations is to help them recognize and appreciate the diversity of the children and families in their programs as well as understand how certain characteristics may be related to specific foundations. Because some of the panelists’ remarks may remind students of similar experiences or circumstances in their own lives, it may be helpful to acknowledge this and plan a time when students can share some of their experiences.

After all the panelists have presented, the students can then ask the panelists the questions they developed earlier. Instructors may wish to let different students ask the questions or ask for a volunteer to moderate the question-and-answer part of the panel discussion.

**Taking it further**

After the panelists have left, facilitate a class discussion on the panel presentation. The following questions are suggested:

- What statement or response from the panelists really caught your attention?
- What was new or surprising? What reaffirmed or caused you to think differently about the impact of different circumstances such as homelessness, foster care, linguistic and cultural diversity, and disability on children’s acquisition of the skills and knowledge described in the history–social science domain foundations?
- What responses to the prepared questions help you better understand how children’s background and experiences relate to the foundations in the history–social science domain?
- How might you apply the information from the panelists in supporting children’s development in the history–social science domain foundations?

**Another approach/way**

Instead of having a panel presentation, instructors could ask students to identify and interview community members who have some of the experience and expertise suggested for the guest speakers. Students could do the interviews individually or in pairs or small groups. The information from the interviews could be shared through class presentations or written summaries.
It might be helpful for the class to develop a list of questions that all students will use in their interviews. The process described in the “Keeping it going” section could be used.

### Online Options

If the class has file sharing and online-discussion capability, students could post written summaries of their interviews and then have an instructor lead online discussion of the reflection questions after they review their classmates’ interviews.

### Reflection

The following questions can be used for individual reflection by students or a class discussion:

- What information from your reading or the panel presentation (or interviews) stands out for you?
- What new perspective or understanding do you have about the relationship between children’s family and cultural experiences and the history–social science domain foundations?
- Which aspects of children’s family and cultural backgrounds do you think are the most significant in terms of children developing some of the skills and knowledge described in the history–social science foundations?
- Because of what you learned from your reading and the panelists (or interviews), what will you do differently when working with children and talking with families about these foundations?

### Deeper Understanding

Ask students to select one of the panel questions for further exploration. They can then go to the Bibliographic Notes for the history–social science domain and identify any sections that relate to the question. When reviewing these sections, suggest that students consider these questions:

- How would you answer the question you selected based on your reading?
- What research findings address the question?
- How does this material support or differ from the panelists’ responses to the question?
- How has this review of some research increased your understanding of the relationship between family, culture, and the history–social science foundations?
• What additional questions do you still have?

Students can then write a two- to three-page paper on their responses. These papers can be shared with other students as part of a class resource compendium.
California Preschool Learning Foundations, Volume 3 overview:

- Scope of the Foundations (pp. 1–4)
- Purpose of the Foundations (pp. 4–5)
- Understanding the Foundations (pp. 5–6)
- Glossary (p. 39)
History–Social Science

Strands

- Self and Society
- Becoming a Preschool Member (Civics)
- Sense of Time (History)
- Sense of Place (Geography and Ecology)
- Marketplace (Economics)

Self and Society: centers on culture and diversity, relationships, and social roles and occupations.

Becoming a Preschool Community Member (Civics): pertains to skills for democratic participation, responsible conduct, fairness and respect for other people, and conflict resolution.
History–Social Science

**Sense of Time (History):** includes understanding past events, anticipating and planning future events, personal history, and historical changes in people and the world.

History–Social Science

**Sense of Place (Geography and Ecology):** covers navigating familiar locations, caring for the natural world, and understanding the physical world through drawings and maps.

**Marketplace (Economics):** focuses on the economic concept of exchange.
History–Social Science

Self and Society
1.0  Culture and Diversity
2.0  Relationships
3.0  Social Roles and Occupations

Becoming a Preschool Community Member (Civics)
1.0  Skills for Democratic Participation
2.0  Responsible Conduct
3.0  Fairness and Respect for Other People
4.0  Conflict Resolution
History–Social Science

**Sense of Time (History)**

1.0  Understanding Past Events
2.0  Anticipating and Planning Future Events
3.0  Personal History
4.0  Historical Changes in People and the World

**Sense of Place (Geography and Ecology)**

1.0  Navigating Familiar Locations
2.0  Caring for the Natural World
3.0  Understanding the Physical World Through Drawings and Maps

**Marketplace (Economics)**

1.0  Exchange
History–Social Science

Read pages 5–6

• Consider the cultural, ethnic, and racial implications related to children’s development and the history–social science foundations.

What statement or response from the panelists really caught your attention?

What was new or surprising?

What reaffirmed or caused you to think differently about the impact of different circumstances on children’s acquisition of the skills and knowledge described in the history–social science domain foundations?
History–Social Science

- What responses to the prepared questions help you better understand how children’s background and experiences relate to the foundations in the history–social science domain?

- How might you apply the information from the panelists in supporting children’s development in the history–social science domain foundations?

History–Social Science

- What information stands out for you?

- What new perspective or understanding do you have about the relationship between children’s family and cultural experiences and the history–social science domain foundations?
History–Social Science

- Which aspects of children’s family and cultural backgrounds do you think are the most significant for children developing the skills and knowledge described in the history–social science foundations?

- Because of what you learned, what will you do differently when working with children and talking with families about these foundations?

History–Social Science

- How would you answer the question you selected based on your reading?

- What research findings address the question?

- How does this material support or differ from the panelists’ responses to the question?
History–Social Science

- How has this review of research increased your understanding of the relationship between family, culture, and the history–social science foundations?

- What additional questions do you still have?
Focus Statement

Students explore the examples of foundations in the history–social science domain and then engage in classroom observations to look for additional examples of the foundations in action. This learning experience is designed to help students understand that the examples in the foundations are not criteria and that children will demonstrate the foundations in many settings and ways.

Curriculum Alignment Project (CAP) Student Learning Outcomes

The Curriculum Alignment Project’s (CAP) lower division eight courses and student learning outcomes are mapped onto each instructional guide learning experience. See Appendix A for the specific student learning outcomes, objectives, and examples of course content and topics for the courses listed below.

• Child Growth and Development
• Introduction to Curriculum
• Principles and Practices of Teaching Young Children
• Observation and Assessment
• Practicum-Field Experience

Instructional Methodologies

• Brainstorming
• Class discussion
• Development of resource tool
• Notetaking outline or guide
• Observations
• Pairs or small groups
• Reflective discussion
California Early Childhood Educator Competency Areas to Consider

The Faculty Initiative Project will undertake a comprehensive process in the future to map the content of the instructional guides to the California Department of Education, Early Education and Support Division’s California Early Childhood Educator Competencies. The “Competency Areas to Consider” below are listed in this instructional guide as a preliminary exploration of how particular competency areas might be addressed through these learning experiences.

- Child Development and Learning
- Learning Environments and Curriculum
- Observation, Screening, Assessment, and Documentation
- Professionalism
- Administration and Supervision
Before You Start

In this learning experience, students are asked to observe children in group settings and watch for examples of children's behavior that demonstrate foundations in the history–social science domain. This domain focuses on behaviors that might be familiar to students but are organized and described in ways that highlight their importance to children’s preparation for adult responsibilities and goals, as well as further education. It will be important to familiarize students with the strands and substrands of this domain and with some of the examples for each foundation before they are asked to observe in early care and education settings. One way to do this is to have students do Learning Experience 3 in this domain titled “Piecing Together the History-Social Science Domain Content Puzzle.”

Building example banks is a feature of every domain in each of the instructional guides for the *California Preschool Learning Foundations*. This has been done to emphasize in each domain that the examples presented for each foundation are neither assessment items to be used as a checklist nor curriculum suggestions. Example banks are also designed to expand students’ observation skills and to help students understand that what they see in early care and education settings are the foundations in action.

Two handouts are provided with this learning experience. Handout 1 is a list of the foundations for the history–social science domain, and Handout 2 is an observation guide that students can use when they do their classroom observations. Electronic versions of these handouts will be available when this instructional guide is online at www.wested.org/facultyinitiative.

Students also will review the examples provided for the foundations. If you have access to several copies of the *California Preschool Learning Foundations, Volume 3*, students could use them for this review. The publication is also available online at http://www.cde.ca.gov/sp/cd/re/psfoundations.asp#psfoundvol3. Students with electronic devices such as laptops or tablets may be able to view the downloaded publication during class.
Direct students’ attention to the first column of the text on page xiv in the introduction to the *California Preschool Learning Foundations, Volume 3*. This text addresses the use of examples in the foundations and emphasizes that the examples are not to be used as assessment or curriculum but as ways in which children might demonstrate the attainment of a foundation. This text also stresses that children might demonstrate behaviors that show the foundations in action in a variety of early care and education contexts, such as “engaging in imaginative play, exploring the environment and materials, making discoveries, being inventive, or interacting with peers, teachers, or other adults (*California Preschool Learning Foundations, Volume 3*, p. xiv).”

Many of the foundations in this domain will be demonstrated through the use of language, but students should be prepared to observe children expressing themselves in any language or nonverbally through the use of gestures, nodding, electronic communication devices, and any other means.

After discussing how examples are used in the foundations, review the strands and substrands in this domain in class before students do their observations. This can be done by asking students to read the foundations aloud in turn. A summary list of the foundations can be found in the history–social science domain in Appendix B of the *California Preschool Learning Foundations, Volume 3* on pages 103–107 and as Handout 1 for this learning experience.

Reviewing a few of the examples for each foundation as the class goes through them will also be helpful for many students. It will be important here to remind students again that examples are neither assessment nor curriculum suggestions. Ask students which of the early care and education contexts (from page xiv of the introduction to the *California Preschool Learning Foundations, Volume 3*) an example represents. It is likely that many examples will represent more than one context.

Another way to familiarize students with this domain is to have them do Learning Experience 3 mentioned in the “Before You Start” section, “Piecing Together the History-Social Science Domain Content Puzzle.”

**Getting it started**
Organize students into pairs or groups of three. There are five strands and fifteen substrands in this domain. One way to assign strands would be to assign two combinations of strands:
1. Self and Society and Becoming A Preschool Member (Civics)  
(seven substrands)

2. Sense of Time (History), Sense of Place (Geology and Ecology),  
and Marketplace  (eight substrands)

Another way would be to assign individual strands, with the  
exception of combining the Sense of Place and Marketplace  
strands. This would give each group three or four substrands.

Provide students with Handout 1, which summarizes the  
foundations, and make sure all students have access to a copy of  
the California Preschool Learning Foundations, Volume 3. As  
students work in their pairs or groups, ask them first to concentrate  
on the foundations in their strand. Then ask them to read through  
the examples for this strand and make a list of examples that they  
have seen or heard young children demonstrate. They can use their  
handout of the foundations to jot down or indicate those foundations  
they have seen or heard.

Next, again having them work in their  
pairs or groups, ask them to add to  
their list by thinking of other ways they  
have observed, heard of, or can think  
of children possibly demonstrating  
each foundation in this strand. They  
continue to note these on their  
handout.

They can further their understanding of  
the strands by exchanging strands and  
working with a new strand or by  
forming new groups and sharing what  
they have found in these groups.

Keeping it going
Building an example bank can then be done to extend and further  
support students’ understanding of the foundations in this domain  
and that the examples are neither assessment nor curriculum.

Ask students to observe children in a preschool classroom. This  
could be where they are currently working or where they might have  
approved access to do an observation. If the observation can be  
done in pairs, it will increase the learning as each pair reviews and  
discusses its observations. Assign specific strands to individual  
students or pairs to focus their observations.
Instructors might want to provide students with a new Handout 1, list of the foundations, or have them use the one they have been working with. There is also an observation guide, Handout 2, provided with this learning experience that students can use to record their observations.

Remind the students that, when they look for examples in settings in which they are working or with children they know, they are looking for observable behaviors or actions that demonstrate the foundations in action. The point of this exercise is not to assess children’s development but rather to explore the foundations and see where and how children demonstrate aspects of these foundations in their preschool settings.

Students might be unsure if something is an example or they might be reluctant to label the behavior that they are observing, but suggest that they just document what they see as examples of the foundations and bring their observations back to class for discussion. It is in the discussion that greater understanding and clarity will emerge.

**Putting it together**
Ask students to bring their list of examples to class. Give students chart paper or whiteboard space so that they can display the examples they observed. Each student can write the examples out on strips of paper or list the examples on chart paper so that the entire class can see them. Be sure the examples are arranged by the strands or substrands that were observed.

Give students time to walk about and see what has emerged. Remind students that it is unlikely that they will see all the history–social science foundations in a single observation. Children will demonstrate behaviors related to the foundations over many activities and over repeated experiences over time.

Be sure that the examples are collected and made available as a resource to students. This can be their example bank.

**Reflection**

Then ask them to discuss their observations. The following set of questions could be used:

- Is there anything you particularly noticed about all the examples?
- Were there some contexts in the classroom where it was easy to see certain foundations in action? Which contexts?
• Were there some contexts in the classroom where it was difficult to see any of the foundations in this domain in action? What were they?

• Did some foundations appear in some contexts and not others? Which were they and during which contexts did they appear?

• What does this tell you about the importance of ongoing observation in early care and education settings?

• What are the implications of this for your current or future work with young children?

Online Options
Students could post their observations online for review by the instructor and their classmates. An instructor led online discussion of the questions could follow, if the class has online-discussion capability.
# History–Social Science

## Self and Society

### 1.0 Culture and Diversity

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>1.1</td>
</tr>
<tr>
<td>Exhibit developing cultural, ethnic, and racial identity and understand relevant language and cultural practices. Display curiosity about diversity in human characteristics and practices, but prefer those of their own group.</td>
<td>Manifest stronger cultural, ethnic, and racial identity and greater familiarity with relevant language, traditions, and other practices. Show more interest in human diversity, but strongly favor characteristics of their own group.</td>
</tr>
</tbody>
</table>

### 2.0 Relationships

<table>
<thead>
<tr>
<th>2.1</th>
<th>2.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interact comfortably with many peers and adults; actively contribute to creating and maintaining relationships with a few significant adults and peers.</td>
<td>Understand the mutual responsibilities of relationships; take initiative in developing relationships that are mutual, cooperative, and exclusive.</td>
</tr>
</tbody>
</table>

### 3.0 Social Roles and Occupations

<table>
<thead>
<tr>
<th>3.1</th>
<th>3.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Play familiar adult social roles and occupations (such as parent, teacher, and doctor) consistent with their developing knowledge of these roles.</td>
<td>Exhibit more sophisticated understanding of a broader variety of adult roles and occupations, but uncertain how work relates to income.</td>
</tr>
</tbody>
</table>

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### Becoming a Preschool Community Member (Civics)

#### 1.0 Skills for Democratic Participation

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Identify as members of a group, participate willingly in group activities, and begin to understand and accept responsibility as group members, although assistance is required in coordinating personal interests with those of others.</td>
<td>1.1 Become involved as responsible participants in group activities, with growing understanding of the importance of considering others’ opinions, group decision making, and respect for majority rules and the views of group members who disagree with the majority.</td>
</tr>
</tbody>
</table>

#### 2.0 Responsible Conduct

| 2.1 Strive to cooperate with group expectations to maintain adult approval and get along with others. Self-control is inconsistent, however, especially when children are frustrated or upset. | 2.1 Exhibit responsible conduct more reliably as children develop self-esteem (and adult approval) from being responsible group members. May also manage others’ behavior to ensure that others also fit in with group expectations. |

#### 3.0 Fairness and Respect for Other People

| 3.1 Respond to the feelings and needs of others with simple forms of assistance, sharing, and turn-taking. Understand the importance of rules that protect fairness and maintain order. | 3.1 Pay attention to others’ feelings, more likely to provide assistance, and try to coordinate personal desires with those of other children in mutually satisfactory ways. Actively support rules that protect fairness to others. |

#### 4.0 Conflict Resolution

| 4.1 Can use simple bargaining strategies and seek adult assistance when in conflict with other children or adults, although frustration, distress, or aggression also occurs. | 4.1 More capable of negotiating, compromising, and finding cooperative means of resolving conflict with peers or adults, although verbal aggression may also result. |
### Sense of Time (History)

#### 1.0 Understanding Past Events

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Recall past experiences easily and enjoy hearing stories about the past, but require adult help to determine when past events occurred in relation to each other and to connect them with current experience.</td>
<td>1.1 Show improving ability to relate past events to other past events and current experiences, although adult assistance continues to be important.</td>
</tr>
</tbody>
</table>

#### 2.0 Anticipating and Planning Future Events

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<tbody>
<tr>
<td>2.1 Anticipate events in familiar situations in the near future, with adult assistance.</td>
<td>2.1 Distinguish when future events will happen, plan for them, and make choices (with adult assistance) that anticipate future needs.</td>
</tr>
</tbody>
</table>

#### 3.0 Personal History

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<tbody>
<tr>
<td>3.1 Proudly display developing skills to attract adult attention and share simple accounts about recent experiences.</td>
<td>3.1 Compare current abilities with skills at a younger age and share more detailed autobiographical stories about recent experiences.</td>
</tr>
</tbody>
</table>

#### 4.0 Historical Changes in People and the World

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<tbody>
<tr>
<td>4.1 Easily distinguish older family members from younger ones (and other people) and events in the recent past from those that happened “long ago,” although do not readily sequence historical events on a timeline.</td>
<td>4.1 Develop an interest in family history (e.g., when family members were children) as well as events of “long ago,” and begin to understand when these events occurred in relation to each other.</td>
</tr>
</tbody>
</table>

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### Sense of Place
*(Geography and Ecology)*

#### 1.0 Navigating Familiar Locations

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Identify the characteristics of familiar locations such as home and school, describe objects and activities associated with each, recognize the routes between them, and begin using simple directional language (with various degrees of accuracy).</td>
<td>1.1 Comprehend larger familiar locations, such as the characteristics of their community and region (including hills and streams, weather, common activities) and the distances between familiar locations (such as between home and school), and compare their home community with those of others.</td>
</tr>
</tbody>
</table>

#### 2.0 Caring for the Natural World

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
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</thead>
<tbody>
<tr>
<td>2.1 Show an interest in nature (including animals, plants, and weather) especially as children have direct experience with them. Begin to understand human interactions with the environment (such as pollution in a lake or stream) and the importance of taking care of plants and animals.</td>
<td>2.1 Show an interest in a wider range of natural phenomena, including those not directly experienced (such as snow for a child living in Southern California), and are more concerned about caring for the natural world and the positive and negative impacts of people on the natural world (e.g., recycling, putting trash in trash cans).</td>
</tr>
</tbody>
</table>

#### 3.0 Understanding the Physical World Through Drawings and Maps

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
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</thead>
<tbody>
<tr>
<td>3.1 Can use drawings, globes, and maps to refer to the physical world, although often unclear on the use of map symbols.</td>
<td>3.1 Create their own drawings, maps, and models; are more skilled at using globes, maps, and map symbols; and use maps for basic problem solving (such as locating objects) with adult guidance.</td>
</tr>
</tbody>
</table>

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### Marketplace (Economics)

<table>
<thead>
<tr>
<th>1.0 Exchange</th>
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</thead>
<tbody>
<tr>
<td><strong>At around 48 months of age</strong></td>
</tr>
<tr>
<td>1.1 Understand ownership, limited supply, what stores do, give-and-take, and</td>
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<tr>
<td>payment of money to sellers. Show interest in money and its function, but</td>
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<tr>
<td>still figuring out the relative value of coins.</td>
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# Observation Guide:
Exploring Examples of the History–Social Science Domain

<table>
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<td>Examples:</td>
<td></td>
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| Strand: Marketplace (Economics)                |
| Substrand: Exchange                           |
| Settings:                                     |
| Examples:                                     |
History–Social Science

Examples listed in the foundations:

- Suggest possible ways children may demonstrate the competencies addressed in the foundations.
- Illustrate contexts in which children may show the competencies described in the foundations.
History–Social Science

Examples listed in the foundations:

• Show that children learn while engaging in imaginative play, exploring the environment and materials, making discoveries, being inventive, or interacting with peers, teachers, or other adults.

• Illustrate possible behaviors and are not exhaustive of the many ways children may demonstrate the competencies.

Self and Society

1.0 Culture and Diversity
2.0 Relationships
3.0 Social Roles and Occupations
History–Social Science

**Becoming a Preschool Community Member (Civics)**
1.0 Skills for Democratic Participation
2.0 Responsible Conduct
3.0 Fairness and Respect for Other People
4.0 Conflict Resolution

History–Social Science

**Sense of Time (History)**
1.0 Understanding Past Events
2.0 Anticipating and Planning Future Events
3.0 Personal History
4.0 Historical Changes in People and the World
History–Social Science

**Sense of Place (Geography and Ecology)**
1.0 Navigating Familiar Locations  
2.0 Caring for the Natural World  
3.0 Understanding the Physical World Through Drawings and Maps  

**Marketplace (Economics)**
1.0 Exchange  

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History–Social Science

**Self and Society**

<table>
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<td>1.1 Manifest stronger cultural, ethnic, and racial identity and greater familiarity with relevant language, traditions, and other practices. Show more interest in human diversity, but strongly favor characteristics of their own group.</td>
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<th>2.1 Understand the mutual responsibilities of relationships; take initiative in developing relationships that are mutual, cooperative, and exclusive.</th>
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<td>2.1 Interact comfortably with many peers and adults; actively contribute to creating and maintaining relationships with a few significant adults and peers.</td>
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History–Social Science

**Observation Guide:**
Exploring Examples of the History–Social Science Domain

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Is there anything you particularly noticed about all the examples?

Were there some contexts in the classroom where it was easy to see certain foundations in action? Which contexts?
History–Social Science

- Were there some contexts in the classroom where it was difficult to see any of the foundations in action? What were they?

- Did some foundations appear in some contexts and not others? Which were they and during which contexts did they appear?

History–Social Science

- What does this tell you about the importance of ongoing observation in early care and education settings?

- What are the implications of this for your current or future work with young children?
History–Social Science:
Understanding How Children Demonstrate the History–Social Science Foundations in the Early Care and Education Setting

Focus Statement

Students become familiar with how children might demonstrate the knowledge and skills described in the history–social science foundations in early care and education settings by asking questions of a panel of teachers and/or administrators.

Curriculum Alignment Project (CAP) Student Learning Outcomes

The Curriculum Alignment Project's (CAP) lower division eight courses and student learning outcomes are mapped onto each instructional guide learning experience. See Appendix A for the specific student learning outcomes, objectives, and examples of course content and topics for the courses listed below.

- Child, Family and Community
- Introduction to Curriculum
- Principles and Practices of Teaching Young Children
- Teaching in a Diverse Society
- Practicum-Field Experience

Instructional Methodologies

- Brainstorming
- Class discussion
- Interview
- Pairs or small groups
- Panel/guest speaker
- Personal reflection
- Reflective discussion
- Short paper or report
California Early Childhood Educator Competency Areas to Consider

The Faculty Initiative Project will undertake a comprehensive process in the future to map the content of the instructional guides to the California Department of Education, Early Education and Support Division’s *California Early Childhood Educator Competencies*. The “Competency Areas to Consider” below are listed in this instructional guide as a preliminary exploration of how particular competency areas might be addressed through these learning experiences.

- Culture, Diversity, and Equity
- Family and Community Engagement
- Learning Environments and Curriculum
- Leadership in Early Childhood Education
- Professionalism
- Administration and Supervision
History–Social Science: Understanding How Children Demonstrate the History–Social Science Foundations in the Early Care and Education Setting

Before You Start

This learning experience will provide students with opportunities to ask questions of early care and education teachers and/or administrators regarding their experience with the history-social science foundations in their settings. The focus is on the foundations, but conversations can easily include situations related to curriculum planning and implementation. Though this is more appropriately addressed while learning about the California Department of Education’s curriculum frameworks for young children, it will be helpful here for students to see how these foundations play out in early childhood education settings and to be exposed to the perspective of teachers and administrators regarding the importance of these foundations. Instructors might need to stay alert to the possibility of the panelists bringing up curriculum planning and be prepared to guide the questions and discussions directly to staying on the foundations.

This learning experience requires that the instructor convene a small panel of teachers and/or administrators (two or three panel members), and it will be especially helpful if panelists who have experience with dual language learners and diverse cultural communities can be included.

Instructors will need to do the first part of this learning experience where students develop their questions at least a class or two prior to the actual panel so that questions are prepared. Some teachers or administrators might even appreciate having the questions ahead of the panel presentation.

If students need to be familiarized with this domain, there are two learning experiences in the history–social science domain of this instructional guide that can be done first: “Piecing Together the History–Social Science Domain Content Puzzle” (Learning Experience 3) and “Exploring the History–Social Science Domain Through Vocabulary and Key Elements” (Learning Experience 4).

Information Delivery

Review the history–social science foundations with the students if they are not already acquainted with these foundations through one of the learning experiences mentioned in the “Before You Start” section. Also be sure they have read the introduction to the domain in the California Preschool Learning Foundations, Volume 3, pages...
1–7. Give special attention to the section in the “Scope of the Foundations” on page 3 that contains the following descriptions of the knowledge and conceptual base underlying the foundations in this domain:

- **Self and Society** (beginning to identify with how their family does things and understand that other families and people have ways of doing things that are different or similar to what their family does)
- **Civics** (how to live with others and how rules work, such as taking turns to go down the slide)
- **History** (events that happened in the past, even before they were born, such as when their mommy was a little girl)
- **Geography** (the location of familiar places in relation to each other, such as knowing the way to preschool or that the park is across the street from the grocery store, and the different kinds of places where people live)
- **Ecology** (learning to take care of earth and animals [for example, not wasting water])
- **Economics** (a beginning understanding of money and the exchange of things and services, such as groceries purchased at the store)

### Getting it started

Let students know that they will be meeting with a panel of teachers and/or administrators to ask questions and discuss the foundations in this domain. Divide the students into groups of two or three and ask that they prepare questions for the panel. The focus here is not on planning but on how and when they see children engaging in behaviors that are related to these foundations. It might be helpful to assign specific pairs or groups to specific substrands or foundations.

The instructor might suggest that students start by asking in general where the panelists see these playing out in their settings. Then the students can develop questions related to this that are more specific, such as asking for examples. Students can also ask from the perspective of specific settings and ask which of these foundations they are likely to see in that setting. They might also want to ask some questions relating to how they talk to parents about these foundations and if they encounter differences in language or culture that affect how children engage with these foundations.
If it is difficult for students to develop questions, this could also be done as a whole group. Or the instructor could take a strand and develop it as a demonstration and then ask the students to work on questions in pairs or small groups.

**Online Options**
Students could work individually or in small groups outside of class and post their lists of questions online prior to the class session.

**Keeping it going**
When they have had some time to develop their questions, reconvene as a whole group and compile the questions. Refine the list to a set that all can agree they would like to have answered. Make sure that students are clear on who will ask which questions and who will introduce, guide, and lead the discussion. Be sure to find out if any students have any “burning questions” about any of the strands or foundations, so that they can be included in appropriate ways.

If the instructor wants students to record responses, develop a way to do that. It can be done individually or on chart paper or whiteboard depending on the purpose and resources. If students will be asked to write a summary, they will certainly want to take notes on the responses.

**Putting it together**
When the panelists arrive, make sure that they are all introduced and have an opportunity to briefly describe their settings before the question and answer session begins.

Following the panel, conduct a brief discussion with students. The following questions might support this discussion:

- What surprised you about their responses?
- What did you learn about the foundations in this domain?
- Was one domain more difficult for them to address than the others? Easier? Why do you think that is the case?

**Taking it further**
Instructors can ask students to write a summary of the panel experience, using their notes. Ask them to write as accurately as they can and to reflect information only and not their reactions to the
information. Or the reflection questions from the “Reflection” section of this learning experience could be included in their writing assignment.

**Another approach/way**
If convening a panel is difficult, students could do this as an interview. The questions could still be generated in class, and a class discussion would be important for collecting and comparing the different responses that students recorded.

**Online Options**
Students could post the summaries of their interviews online. If the class has online-discussion capability, the instructor and students could then either discuss the interviews online or in class.

**Reflection**
Following either the panel or interviews, support students in reflecting on their experience with the following questions:

- What was the most unexpected thing you heard?
- What did you hear that was familiar or expected?
- Why is it important to support these foundations in the early experiences of young children?
- How do you think this experience will affect your work with young children and their families?
History–Social Science

**Self and Society:** beginning to identify with how their family does things and understand that other families and people have ways of doing things that are different or similar to what their family does.

**Becoming a Preschool Community Member (Civics):** how to live with others and how rules work, such as taking turns to go down the slide.
History–Social Science

Marketplace (Economics): a beginning understanding of money and the exchange of things and services, such as groceries purchased at the store.

Sense of Time (History): events that happened in the past, even before they were born, such as when their mommy was a little girl.

Sense of Place (Geography): the location of familiar places in relation to each other, such as knowing the way to preschool or that the park is across the street from the grocery store) and the different kinds of places where people live.

(Ecology) learning to take care of earth and animals.
History–Social Science

- What surprised you about the panelists’ responses?
- What did you learn about the foundations in this domain?
- Was one domain more difficult for them to address than the others? Easier? Why do you think that is the case?

History–Social Science

- What was the most unexpected thing you heard?
- What did you hear that was familiar or expected?
History–Social Science

- Why is it important to support these foundations in the early experiences of young children?
- How do you think this experience will affect your work with young children and their families?
History–Social Science:
Discovering Relationships Between the History–Social Science Domain and the Social-Emotional Development Domain and the English-Language Development Domain

Focus Statement

Students explore the relationships between the foundations of the history–social science domain and the foundations of the social-emotional development and English-language development domains by creating visual representations of these relationships.

Curriculum Alignment Project (CAP) Student Learning Outcomes

The Curriculum Alignment Project’s (CAP) lower division eight courses and student learning outcomes are mapped onto each instructional guide learning experience. See Appendix A for the specific student learning outcomes, objectives, and examples of course content and topics for the courses listed below.

- Child Growth and Development
- Practicum-Field Experience

Instructional Methodologies

- Class presentation
- Creation of a visual representation
- Pairs or small groups
- Problem solving
- Reflective discussion

California Early Childhood Educator Competency Areas to Consider

The Faculty Initiative Project will undertake a comprehensive process in the future to map the content of the instructional guides to the California Department of Education, Early Education and Support Division’s California Early Childhood Educator Competencies. The “Competency Areas to Consider” below are listed in this instructional guide as a preliminary exploration of how particular competency areas might be addressed through these learning experiences.
• Child Development and Learning
• Relationships, Interactions, and Guidance
• Dual-Language Development
• Learning Environments and Curriculum
• Professionalism
History–Social Science:
Discovering Relationships Between the History–Social Science Domain and the Social-Emotional Development Domain and the English-Language Development Domain

Before You Start

Volume 3 of the California Preschool Learning Foundations presents the final two domains of learning and development produced by the California Department of Education as part of its early learning system. The foundations are the heart of the system (California Preschool Learning Foundations, Volume 3, p. xvi), and this volume provides a unique opportunity for students to become acquainted with all nine domains. There are four learning experiences in this instructional guide that, when used as a set, can provide opportunities for students to explore all nine domains and how they relate to one another. These learning experiences present selected domains and strands and some ways in which they relate to one another. It is extremely important to point out to students that these are not the only ways in which domains and strands within the three volumes of the foundations are related to one another. Each of these learning experiences focuses on one of the two domains in the California Preschool Learning Foundations, Volume 3 and a domain or selected set of domains from either the California Preschool Learning Foundations, Volume 1 or California Preschool Learning Foundations, Volume 2.

Depending on the emphasis of any particular course, any of these four learning experiences can be used independently of the others or all four can be used in sequence or combination. The following list of these four learning experiences describes the domains addressed in each one:


• Science domain, Learning Experience 11—“Exploring the Relationship of the Science Domain to the Mathematics Domain and the Language and Literacy Domain”—focuses on the relation of the science domain in Volume 3 to the mathematics and language and literacy domains in Volume 1.

• Science domain, Learning Experience 12—“Exploring Relationships of the Science Domain to the Physical Development Domain and the Health Domain”—focuses on the relationship of the science domain to the domains of physical development and health in Volume 2.

Thus each of the nine domains is explored in relation to at least one other domain, and the domains in Volume 3 are highlighted. The specific domains explored in relation to one another are grouped in a way that reflects strong relationships between the strands of these domains. It is hoped that this offers students an understanding of how these various domains in the foundations are integrated in early learning and development.

Each of the learning experiences guides students through domains using different instructional methodologies. These methodologies could be used with the domains or strands as presented here or used flexibly across several sets of domains.

This learning experience will focus on how the history–social science domain relates to the social-emotional development domain and the English-language development domain.

Before beginning to work across domains, instructors might want to have students do the learning experience entitled “Piecing Together the History–Social Science Domain Puzzle” to ensure they are familiar with the strands of the history–social science domain, since this domain is highlighted.

Handouts of the foundations for the history–social science (Handout 1), social-emotional development (Handout 2), and English-language development (Handout 3) domains are provided with this learning experience. Electronic versions of these handouts will be available when this instructional guide is online at www.wested.org/facultyinitiative.

In this learning experience, one suggestion for students to demonstrate the relationship between the strands of two domains is to draw concentric circles on a large piece of paper and then indicate relationships by attaching pieces of yarn or string to the related strands. If this approach is chosen, it will be helpful to provide large sheets of paper and string or yarn and tape.

**Information Delivery**

Let students know that they will be exploring some ways in which the strands of the history–social science domain are related to two other domains of early learning, social-emotional development and English-language development, which are part of the California Department of Education’s early learning system. Emphasize that
this learning experience is an exploration of some selected relationships. There are several ways in which many of the domains and strands are related, and students will only be exploring some specific targeted relationships. This can help them understand the many ways in which early learning is integrated across domains.

It will be helpful if students have read through the introduction to this domain before coming to class. Introduce students to the strands of the history–social science domain:

- Self and Society
- Becoming a Preschool Community Member (Civics)
- Sense of Time (History)
- Sense of Place (Geography and Ecology)
- Marketplace (Economics)

The following descriptions of these strands are taken from page 3 of the introduction to the domain in the *California Preschool Learning Foundations, Volume 3*. The descriptions are in terms that can help students see the concepts and knowledge base for young children that are represented in these strands. Note that they are underlying concepts that young children are developing and learning. Ask students to find these and read them aloud, if needed.

- Self and Society (beginning to identify with how their family does things and understand that other families and people have ways of doing things that are different or similar to what their family does)
- Civics (how to live with others and how rules work, such as taking turns to go down the slide)
- History (events that happened in the past, even before they were born, such as when their mommy was a little girl)
- Geography (the location of familiar places in relation to each other, such as knowing the way to preschool or that the park is across the street from the grocery store, and the different kinds of places where people live)
- Ecology (learning to take care of earth and animals [for example, not wasting water])
- Economics (a beginning understanding of money and the exchange of things and services, such as groceries purchased at the store)
Active Learning

Getting it started
This active learning will take some time. Students will need to become familiar with several domains of the foundations and work across them. Students should have at least 30–40 minutes to do their initial charting. It might require more time depending on the level of education and experience of your students.

Provide each group with a copy of the summary of the history–social science foundations (Handout 1) and the summary of the foundations for the domain they are working with (Handout 2 or Handout 3). These are included in this instructional guide following this learning experience.

Organize students into groups of three or four. Each group will work with all the strands of the history–social science domain and either the social-emotional development domain or the English-language development domain. Try to have at least two groups for social-emotional development and two for English-language development. Let students know that they will be charting where they find relationships in the content of the history–social science strands and the strands of the other domain they are working with. These relationships could be similarities, precursors, co-development, or other relationships that students might discover.

For those students working with the social-emotional development domain, give each group three pieces of chart paper. Each paper can be used for one strand of the social-emotional development domain: Self, Social Interactions, and Relationships. There are 12 substrands in the social-emotional development domain, so if there are at least three groups working with social-emotional development, give each group one strand of the social-emotional development domain. They will find several strands across the domains that look like they are the same. For example, there are some similar, but not identical, behaviors in the Interaction strand of social-emotional development and the Becoming a Preschool Community Member strand of history–social science. Ask students to explore how these behaviors might be different or why it would be important for these behaviors to appear in slightly different form in more than one domain. Ask students to note on their charts possible relationships between their assigned strand(s) and the history–social science strands.

For those students working with the English-language development domain, it might be better for them to work with a single chart. This domain does not have substrands; it has strands with levels and foci.
Suggest that students work with the “later” level and think about what the relationship might be between what young children are doing in that level and how that would relate to their demonstration of the foundations in the history–social science domain. Students might find the examples for the “later” level helpful in thinking about the language requirements of the foundations in the history–social science domain. Ask students to make notes of these possible relationships on their charts.

It will be helpful to briefly discuss what kind of support these relationships suggest that would be helpful to students who are dual-language learners, although that is explored in the curriculum frameworks rather than in the foundations.

It might be helpful to gather as a large group after the students have worked on their charts for a few minutes and ask what they are discovering. Even recording the strands on their charts will start to alert them to some relationships. This might give all students some ideas of what others have found and where they might look further for more discoveries.

**Keeping it going**
Ask each group to choose a way to visually represent these relationships. There are several ways they might do this.

- It could be done with concentric circles or ovals—one for history–social science in the middle and social-emotional development or English-language development as an outer circle or oval. Students could organize the strands along the rims of those circles and then use string or yarn to indicate where the content is related and write comments on the paper along the line of the string or yarn.
- Students could develop a matrix with one domain vertically down one side and one domain across the top horizontally and indicate with check marks and comments where there are relationships and what they might be.

**Online Options**
Students could post their visual representations online instead of doing class presentations. Students could then individually comment on the presentations in a short paper or, if you have online-discussion and document-sharing capability, have an instructor and group discussion on each presentation.
Putting it together
When they have had some time to explore and record relationships between the domains, let students know that they will be presenting their findings to another group. If the class is small, each group can present their findings to the rest of the class. Or each group can present its findings to another group working on a different domain. Ask students to emphasize in their presentations where they found strong relationships, and note how that indicates the integrated nature of early learning and development.

Reflection
Following their presentations, ask students to respond to the following questions:

- What discoveries did you make while you were doing this?
- Did some strands have stronger relationships than others?
- What new ideas about early learning and development emerged?
- What more do you want to find out about regarding the domains you worked with? How could you get that information?
### History–Social Science

#### Self and Society

<table>
<thead>
<tr>
<th><strong>1.0 Culture and Diversity</strong></th>
<th><strong>At around 48 months of age</strong></th>
<th><strong>At around 60 months of age</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Exhibit developing cultural, ethnic, and racial identity and understand relevant language and cultural practices. Display curiosity about diversity in human characteristics and practices, but prefer those of their own group.</td>
<td>1.1 Manifest stronger cultural, ethnic, and racial identity and greater familiarity with relevant language, traditions, and other practices. Show more interest in human diversity, but strongly favor characteristics of their own group.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>2.0 Relationships</strong></th>
<th><strong>2.1</strong></th>
<th><strong>2.1</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Interact comfortably with many peers and adults; actively contribute to creating and maintaining relationships with a few significant adults and peers.</td>
<td>Understand the mutual responsibilities of relationships; take initiative in developing relationships that are mutual, cooperative, and exclusive.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>3.0 Social Roles and Occupations</strong></th>
<th><strong>3.1</strong></th>
<th><strong>3.1</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Play familiar adult social roles and occupations (such as parent, teacher, and doctor) consistent with their developing knowledge of these roles.</td>
<td>Exhibit more sophisticated understanding of a broader variety of adult roles and occupations, but uncertain how work relates to income.</td>
</tr>
</tbody>
</table>

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## Becoming a Preschool Community Member (Civics)

### 1.0 Skills for Democratic Participation

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Identify as members of a group, participate willingly in group activities, and begin to understand and accept responsibility as group members, although assistance is required in coordinating personal interests with those of others.</td>
<td>1.1 Become involved as responsible participants in group activities, with growing understanding of the importance of considering others’ opinions, group decision making, and respect for majority rules and the views of group members who disagree with the majority.</td>
</tr>
</tbody>
</table>

### 2.0 Responsible Conduct

| 2.1 Strive to cooperate with group expectations to maintain adult approval and get along with others. Self-control is inconsistent, however, especially when children are frustrated or upset. |
| 2.1 Exhibit responsible conduct more reliably as children develop self-esteem (and adult approval) from being responsible group members. May also manage others’ behavior to ensure that others also fit in with group expectations. |

### 3.0 Fairness and Respect for Other People

| 3.1 Respond to the feelings and needs of others with simple forms of assistance, sharing, and turn-taking. Understand the importance of rules that protect fairness and maintain order. |
| 3.1 Pay attention to others’ feelings, more likely to provide assistance, and try to coordinate personal desires with those of other children in mutually satisfactory ways. Actively support rules that protect fairness to others. |

### 4.0 Conflict Resolution

| 4.1 Can use simple bargaining strategies and seek adult assistance when in conflict with other children or adults, although frustration, distress, or aggression also occurs. |
| 4.1 More capable of negotiating, compromising, and finding cooperative means of resolving conflict with peers or adults, although verbal aggression may also result. |
# Sense of Time (History)

## 1.0 Understanding Past Events

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Recall past experiences easily and enjoy hearing stories about the past, but require adult help to determine when past events occurred in relation to each other and to connect them with current experience.</td>
<td>1.1 Show improving ability to relate past events to other past events and current experiences, although adult assistance continues to be important.</td>
</tr>
</tbody>
</table>

## 2.0 Anticipating and Planning Future Events

| 2.1 Anticipate events in familiar situations in the near future, with adult assistance. | 2.1 Distinguish when future events will happen, plan for them, and make choices (with adult assistance) that anticipate future needs. |

## 3.0 Personal History

| 3.1 Proudly display developing skills to attract adult attention and share simple accounts about recent experiences. | 3.1 Compare current abilities with skills at a younger age and share more detailed autobiographical stories about recent experiences. |

## 4.0 Historical Changes in People and the World

| 4.1 Easily distinguish older family members from younger ones (and other people) and events in the recent past from those that happened "long ago," although do not readily sequence historical events on a timeline. | 4.1 Develop an interest in family history (e.g., when family members were children) as well as events of "long ago," and begin to understand when these events occurred in relation to each other. |

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## Sense of Place
(Geography and Ecology)

### 1.0 Navigating Familiar Locations

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
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<tbody>
<tr>
<td>1.1 Identify the characteristics of familiar locations such as home and school, describe objects and activities associated with each, recognize the routes between them, and begin using simple directional language (with various degrees of accuracy).</td>
<td>1.1 Comprehend larger familiar locations, such as the characteristics of their community and region (including hills and streams, weather, common activities) and the distances between familiar locations (such as between home and school), and compare their home community with those of others.</td>
</tr>
</tbody>
</table>

### 2.0 Caring for the Natural World

| 2.1 Show an interest in nature (including animals, plants, and weather) especially as children have direct experience with them. Begin to understand human interactions with the environment (such as pollution in a lake or stream) and the importance of taking care of plants and animals. | 2.1 Show an interest in a wider range of natural phenomena, including those not directly experienced (such as snow for a child living in Southern California), and are more concerned about caring for the natural world and the positive and negative impacts of people on the natural world (e.g., recycling, putting trash in trash cans). |

### 3.0 Understanding the Physical World Through Drawings and Maps

| 3.1 Can use drawings, globes, and maps to refer to the physical world, although often unclear on the use of map symbols. | 3.1 Create their own drawings, maps, and models; are more skilled at using globes, maps, and map symbols; and use maps for basic problem solving (such as locating objects) with adult guidance. |
# Marketplace (Economics)

## 1.0 Exchange

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Understand ownership, limited supply, what stores do, give-and-take, and payment of money to sellers. Show interest in money and its function, but still figuring out the relative value of coins.</td>
<td>1.1 Understand more complex economic concepts (e.g., bartering; more money is needed for things of greater value; if more people want something, more will be sold).</td>
</tr>
</tbody>
</table>

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### Social-Emotional Development

#### Self

**1.0 Self-Awareness**

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Describe their physical characteristics, behavior, and abilities positively.</td>
<td>1.1 Compare their characteristics with those of others and display a growing awareness of their psychological characteristics, such as thoughts and feelings.</td>
</tr>
</tbody>
</table>

**2.0 Self-Regulation**

<p>| | |</p>
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<tbody>
<tr>
<td>2.1 Need adult guidance in managing their attention, feelings, and impulses and show some effort at self-control.</td>
<td>2.1 Regulate their attention, thoughts, feelings, and impulses more consistently, although adult guidance is sometimes necessary.</td>
</tr>
</tbody>
</table>

**3.0 Social and Emotional Understanding**

<p>| | |</p>
<table>
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<tbody>
<tr>
<td>3.1 Seek to understand people’s feelings and behavior, notice diversity in human characteristics, and are interested in how people are similar and different.</td>
<td>3.1 Begin to comprehend the mental and psychological reasons people act as they do and how they contribute to differences between people.</td>
</tr>
</tbody>
</table>

**4.0 Empathy and Caring**

<p>| | |</p>
<table>
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<tbody>
<tr>
<td>4.1 Demonstrate concern for the needs of others and people in distress.</td>
<td>4.1 Respond to another’s distress and needs with sympathetic caring and are more likely to assist.</td>
</tr>
</tbody>
</table>

**5.0 Initiative in Learning**

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</thead>
<tbody>
<tr>
<td>5.1 Enjoy learning and are confident in their abilities to make new discoveries although may not persist at solving difficult problems.</td>
<td>5.1 Take greater initiative in making new discoveries, identifying new solutions, and persisting in trying to figure things out.</td>
</tr>
</tbody>
</table>
# Social Interaction

## 1.0 Interactions with Familiar Adults

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Interact with familiar adults comfortably and competently, especially in familiar settings.</td>
<td>1.1 Participate in longer and more reciprocal interactions with familiar adults and take greater initiative in social interaction.</td>
</tr>
</tbody>
</table>

## 2.0 Interactions with Peers

| 2.1 Interact easily with peers in shared activities that occasionally become cooperative efforts. | 2.1 More actively and intentionally cooperate with each other. |
| 2.2 Participate in simple sequences of pretend play. | 2.2 Create more complex sequences of pretend play that involve planning, coordination of roles, and cooperation. |
| 2.3 Seek assistance in resolving peer conflict, especially when disagreements have escalated into physical aggression. | 2.3 Negotiate with each other, seeking adult assistance when needed, and increasingly use words to respond to conflict. Disagreements may be expressed with verbal taunting in addition to physical aggression. |

## 3.0 Group Participation

| 3.1 Participate in group activities and are beginning to understand and cooperate with social expectations, group rules, and roles. | 3.1 Participate positively and cooperatively as group members. |

## 4.0 Cooperation and Responsibility

| 4.1 Seek to cooperate with adult instructions but their capacities for self-control are limited, especially when they are frustrated or upset. | 4.1 Have growing capacities for self-control and are motivated to cooperate in order to receive adult approval and think approvingly of themselves. |

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### Relationships

#### 1.0 Attachments to Parents

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Seek security and support from their primary family attachment figures.</td>
<td>1.1 Take greater initiative in seeking support from their primary family attachment figures.</td>
</tr>
<tr>
<td>1.2 Contribute to maintaining positive relationships with their primary family attachment figures.</td>
<td>1.2 Contribute to positive mutual cooperation with their primary family attachment figures.</td>
</tr>
<tr>
<td>1.3 After experience with out-of-home care, manage departures and separations from primary family attachment figures with the teacher’s assistance.</td>
<td>1.3 After experience with out-of-home care, comfortably depart from their primary family attachment figures. Also maintain well-being while apart from primary family attachment figures during the day.</td>
</tr>
</tbody>
</table>

#### 2.0 Close Relationships with Teachers and Caregivers

| 2.1 Seek security and support from their primary teachers and caregivers. | 2.1 Take greater initiative in seeking the support of their primary teachers and caregivers. |
| 2.2 Contribute to maintaining positive relationships with their primary teachers and caregivers. | 2.2 Contribute to positive mutual cooperation with their primary teachers and caregivers. |

#### 3.0 Friendships

| 3.1 Choose to play with one or two special peers whom they identify as friends. | 3.1 Friendships are more reciprocal, exclusive, and enduring. |

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# English-Language Development

## Listening

### Focus: Beginning words

<table>
<thead>
<tr>
<th>Start</th>
<th>Middle</th>
<th>Later</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>1.1</td>
<td>1.1</td>
</tr>
<tr>
<td>Attend to English oral language in both real and pretend activity, relying on intonation, facial expressions, or the gestures of the speaker.</td>
<td>Demonstrate understanding of words in English for objects and actions as well as phrases encountered frequently in both real and pretend activity.</td>
<td>Begin to demonstrate an understanding of a larger set of words in English (for objects and actions, personal pronouns, and possessives) in both real and pretend activity.</td>
</tr>
</tbody>
</table>

### Focus: Requests and directions

<table>
<thead>
<tr>
<th>Start</th>
<th>Middle</th>
<th>Later</th>
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<tbody>
<tr>
<td>1.2</td>
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<tr>
<td>Begin to follow simple directions in English, especially when there are contextual cues.</td>
<td>Respond appropriately to requests involving one step when personally directed by others, which may occur with or without contextual cues.</td>
<td>Follow directions that involve a one- or two-step sequence, relying less on contextual cues.</td>
</tr>
</tbody>
</table>

### Focus: Basic and advanced concepts

<table>
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<tr>
<th>Start</th>
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<tbody>
<tr>
<td>1.3</td>
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<tr>
<td>Demonstrate an understanding of words related to basic and advanced concepts in the home language that are appropriate for the age (as reported by parents, teachers, assistants, or others, with the assistance of an interpreter if necessary).</td>
<td>Begin to demonstrate an understanding of words in English related to basic concepts.</td>
<td>Demonstrate an understanding of words in English related to more advanced concepts.</td>
</tr>
</tbody>
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### Speaking

1.0 Children use nonverbal and verbal strategies to communicate with others.

**Focus: Communication of needs**

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<thead>
<tr>
<th>Beginning</th>
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</thead>
<tbody>
<tr>
<td>1.1 Use nonverbal communication, such as gestures or behaviors, to seek attention, request objects, or initiate a response from others.</td>
<td>1.1 Combine nonverbal and some verbal communication to be understood by others (may code-switch—that is, use the home language and English—and use telegraphic and/or formulaic speech).</td>
<td>1.1 Show increasing reliance on verbal communication in English to be understood by others.</td>
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</table>

**Focus: Vocabulary production**

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<tbody>
<tr>
<td>1.2 Use vocabulary in the home language that is age-appropriate (as reported by parents, teachers, assistants, or others and with the assistance of an interpreter if necessary).</td>
<td>1.2 Begin to use English vocabulary, mainly consisting of concrete nouns and with some verbs and pronouns (telegraphic speech).</td>
<td>1.2 Use new English vocabulary to share knowledge of concepts.</td>
</tr>
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</table>

**Focus: Conversation**

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<thead>
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<tbody>
<tr>
<td>1.3 Converse in the home language (as reported by parents, teachers, assistants, or others, with the assistance of an interpreter if necessary).</td>
<td>1.3 Begin to converse with others, using English vocabulary but may code-switch (i.e., use the home language and English).</td>
<td>1.3 Sustain a conversation in English about a variety of topics.</td>
</tr>
</tbody>
</table>
### 1.0 Children use nonverbal and verbal strategies to communicate with others.

**Focus: Utterance length and complexity**

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<thead>
<tr>
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<th>Beginning</th>
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<tbody>
<tr>
<td>1.4</td>
<td>Use a range of utterance lengths in the home language that is age-appropriate (as reported by parents, teachers, assistants, or others, with the assistance of an interpreter if necessary).</td>
<td>1.4 Use two- and three-word utterances in English to communicate.</td>
<td>1.4 Increase utterance length in English by adding appropriate possessive pronouns (e.g., his, her); conjunctions (e.g., and, or); or other elements (e.g., adjectives, adverbs).</td>
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</table>

**Focus: Grammar**

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<tbody>
<tr>
<td>1.5</td>
<td>Use age-appropriate grammar in the home language (e.g., plurals; simple past tense; use of subject, verb, object), sometimes with errors (as reported by parents, teachers, assistants, or others, with the assistance of an interpreter if necessary).</td>
<td>1.5 Begin to use some English grammatical markers (e.g., -ing or plural -s) and, at times, apply the rules of grammar of the home language to English.</td>
<td>1.5 Expand the use of different forms of grammar in English (e.g., plurals; simple past tense; use of subject, verb and object), sometimes with errors.</td>
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**Focus: Inquiry**

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<tr>
<td>1.6</td>
<td>Ask a variety of types of questions (e.g., “what,” “why,” “how,” “when,” and “where”) in the home language (as reported by parents, teachers, assistants, or others, with the assistance of an interpreter if necessary).</td>
<td>1.6 Begin to use “what” and “why” questions in English, sometimes with errors.</td>
<td>1.6 Begin to use “what,” “why,” “how,” “when,” and “where” questions in more complete forms in English, sometimes with errors.</td>
</tr>
</tbody>
</table>
# 2.0 Children begin to understand and use social conventions in English.

**Focus: Social conventions**

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<thead>
<tr>
<th>Beginning</th>
<th>Middle</th>
<th>Later</th>
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</thead>
<tbody>
<tr>
<td>2.1 Use social conventions of the home language (as reported by teachers, parents, assistants, or others, with the assistance of an interpreter if necessary).</td>
<td>2.1 Demonstrate a beginning understanding of English social conventions.</td>
<td>2.1 Appropriately use words and tone of voice associated with social conventions in English.</td>
</tr>
</tbody>
</table>

# 3.0 Children use language to create oral narratives about their personal experiences.

**Focus: Narrative development**

| 3.1 Create a narrative in the home language (as reported by parents, teachers, assistants, or others, with the assistance of an interpreter if necessary). | 3.1 Begin to use English to talk about personal experiences; may complete a narrative in the home language while using some English (i.e., code-switching). | 3.1 Produce simple narratives in English that are real or fictional. |
### Reading

1.0 Children demonstrate an appreciation and enjoyment of reading and literature.

**Focus: Participate in read-aloud activity**

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<thead>
<tr>
<th></th>
<th>Beginning</th>
<th>Middle</th>
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</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Attend to an adult reading a short storybook written in the home language or a storybook written in English if the story has been read in the home language.</td>
<td>1.1 Begin to participate in reading activities, using books written in English when the language is predictable.</td>
<td>1.1 Participate in reading activities, using a variety of genres that are written in English (e.g., poetry, fairy tales, concept books, and informational books).</td>
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</tbody>
</table>

**Focus: Interest in books and reading**

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<tbody>
<tr>
<td>1.2</td>
<td>“Read” familiar books written in the home language or in English when encouraged by others and, in the home language, talk about the books.</td>
<td>1.2 Choose to “read” familiar books written in the home language or in English with increasing independence and, in the home language or in English, talk about the books.</td>
<td>1.2 Choose to “read” familiar books written in English with increasing independence and talk about the books in English.</td>
</tr>
</tbody>
</table>
### 2.0 Children show an increasing understanding of book reading.

**Focus: Personal connections to the story**

<table>
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<tr>
<th>Beginning</th>
<th>Middle</th>
<th>Later</th>
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</thead>
<tbody>
<tr>
<td>2.1 Begin to identify and relate to a story from their own life experiences in the home language (as reported by parents, teachers, assistants, or others, with the assistance of an interpreter if necessary).</td>
<td>2.1 Describe their own experiences related to the topic of the story, using telegraphic and/or formulaic speech in English.</td>
<td>2.1 Begin to engage in extended conversations in English about stories.</td>
</tr>
</tbody>
</table>

**Focus: Story structure**

| 2.2 Retell a story in the home language when read or told a story in the home language (as reported by parents, teachers, assistants, or others, with the assistance of an interpreter if necessary). | 2.2 Retell a story using the home language and some English when read or told a story in English. | 2.2 Retell in English the majority of a story read or told in English. |

### 3.0 Children demonstrate an understanding of print conventions.

**Focus: Book handling**

| 3.1 Begin to understand that books are read in a consistent manner (e.g., in English, pages are turned from right to left and the print is read from top to bottom, left to right; this may vary in other languages). | 3.1 Continue to develop an understanding of how to read a book, sometimes applying knowledge of print conventions from the home language. | 3.1 Demonstrate an understanding that print in English is organized from left to right, top to bottom, and that pages are turned from right to left when a book is read. |
### 4.0 Children demonstrate awareness that print carries meaning.

**Focus: Environmental print**

<table>
<thead>
<tr>
<th>Beginning</th>
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<th>Later</th>
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<tbody>
<tr>
<td>4.1 Begin to recognize that symbols in the environment (classroom, community, or home) carry a consistent meaning in the home language or in English.</td>
<td>4.1 Recognize in the environment (classroom, community, or home) some familiar symbols, words, and print labels in the home language or in English.</td>
<td>4.1 Recognize in the environment (classroom, community, or home) an increasing number of familiar symbols, words, and print labels in English.</td>
</tr>
</tbody>
</table>

### 5.0 Children demonstrate progress in their knowledge of the alphabet in English.

**Focus: Letter awareness**

| 5.1 | 5.1 | 5.1 |
| Interact with material representing the letters of the English alphabet. | Begin to talk about the letters of the English alphabet while playing and interacting with them; may code-switch (use the home language and English). | Begin to demonstrate understanding that the letters of the English alphabet are symbols used to make words. |

**Focus: Letter recognition**

| 5.2 | 5.2 | 5.2 |
| Begin to recognize the first letter in their own name or the character for their own name in the home language or English. | Identify some letters of the alphabet in English. | Identify ten or more letters of the alphabet in English. |

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6.0 Children demonstrate phonological awareness.

**Focus: Rhyming**

<table>
<thead>
<tr>
<th>Beginning</th>
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<tbody>
<tr>
<td>6.1 Listen attentively and begin to participate in simple songs, poems, and finger plays that emphasize rhyme in the home language or in English.</td>
<td>6.1 Begin to repeat or recite simple songs, poems, and finger plays that emphasize rhyme in the home language or in English.</td>
<td>6.1 Repeat, recite, produce, or initiate simple songs, poems, and finger plays that emphasize rhyme in English.</td>
</tr>
</tbody>
</table>

**Focus: Onset (initial sound)**

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<tbody>
<tr>
<td>6.2 Listen attentively and begin to participate in simple songs, poems, and finger plays in the home language or in English.</td>
<td>6.2 Begin to recognize words that have a similar onset (initial sound) in the home language or in English, with support.</td>
<td>6.2 Recognize and produce words that have a similar onset (initial sound) in English.</td>
</tr>
</tbody>
</table>

**Focus: Sound differences in the home language and English**

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<tbody>
<tr>
<td>6.3 Attend to and manipulate different sounds or tones in words in the home language (as reported by parents, teachers, assistants, or others, with the assistance of an interpreter if necessary.)</td>
<td>6.3 Begin to use words in English with phonemes (individual units of meaningful sound in a word or syllable) that are different from the home language.</td>
<td>6.3 Begin to orally manipulate sounds (onsets, rimes, and phonemes) in words in English, with support.</td>
</tr>
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</table>
### Writing

**1.0 Children use writing to communicate their ideas.**

**Focus: Writing as communication**

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<tr>
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<th>Beginning</th>
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<th>Later</th>
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</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Begin to understand that writing can be used to communicate.</td>
<td>Begin to understand that what is said in the home language or in English can be written down and read by others.</td>
<td>Develop an increasing understanding that what is said in English can be written down and read by others.</td>
</tr>
</tbody>
</table>

**Focus: Writing to represent words or ideas**

|               | Begin to demonstrate awareness that written language can be in the home language or in English. | Begin to use marks or symbols to represent spoken language in the home language or in English. | Continue to develop writing by using letters or letter-like marks to represent their ideas in English. |

**Focus: Writing their name**

|               | Write marks to represent their own name in a way that may resemble how it is written in the home language. | Attempt to copy their own name in English or in the writing system of their home language. | Write their first name on their own in English nearly correctly, using letters of the English alphabet to accurately represent pronunciation in their home language. |

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History–Social Science

**Self and Society:** beginning to identify with how their family does things and understand that other families and people have ways of doing things that are different or similar to what their family does.

**Becoming a Preschool Community Member (Civics):** how to live with others and how rules work, such as taking turns to go down the slide.
History–Social Science

**Marketplace (Economics):** a beginning understanding of money and the exchange of things and services, such as groceries purchased at the store.

**Sense of Time (History):** events that happened in the past, even before they were born, such as when their mommy was a little girl.

**Sense of Place (Geography):** the location of familiar places in relation to each other, such as knowing the way to preschool or that the park is across the street from the grocery store) and the different kinds of places where people live.

**(Ecology)** learning to take care of earth and animals.
English-Language Development

**Listening**
1.0 Children listen with understanding.

**Speaking**
1.0 Children use nonverbal and verbal strategies to communicate with others.
2.0 Children begin to understand and use social conventions in English.

---

English-Language Development

**Speaking**
3.0 Children use language to create oral narratives about their personal experiences.

**Reading**
1.0 Children demonstrate an appreciation and enjoyment of reading and literature.
English-Language Development

Reading
2.0 Children show an increasing understanding of book reading.
3.0 Children demonstrate an understanding of print conventions.
4.0 Children demonstrate awareness that print carries meaning.

Writing
1.0 Children use writing to communicate their ideas.
Social-Emotional Development

**Self**
1.0 Self-Awareness
2.0 Self-Regulation
3.0 Social and Emotional Understanding
4.0 Empathy and Caring
5.0 Initiative in Learning

Social-Emotional Development

**Social Interaction**
1.0 Interactions with Familiar Adults
2.0 Interactions with Peers
3.0 Group Participation
4.0 Cooperation and Responsibility
Social-Emotional Development

Relationships
1.0 Attachments to Parents
2.0 Close Relationships with Teachers and Caregivers
3.0 Friendships

History–Social Science
What discoveries did you make while you were doing this?
Did some strands have stronger relationships than others?
History–Social Science

- What new ideas about early learning and development emerged?
- What more do you want to find out about regarding the domains you worked with? How could you get that information?
History–Social Science: Discovering Relationships of the History–Social Science Domain to the Visual and Performing Arts Domain

Focus Statement

Students explore the relationship between the history–social science domain and the visual and performing arts domain by creating a visual representation or performance of the history–social science domain strands.

Curriculum Alignment Project (CAP) Student Learning Outcomes

The Curriculum Alignment Project’s (CAP) lower division eight courses and student learning outcomes are mapped onto each instructional guide learning experience. See Appendix A for the specific student learning outcomes, objectives, and examples of course content and topics for the courses listed below.

- Child Growth and Development
- Practicum-Field Experience

Instructional Methodologies

- Class presentation
- Creation of a visual representation
- Pairs or small groups
- Reflective discussion

California Early Childhood Educator Competency Areas to Consider

The Faculty Initiative Project will undertake a comprehensive process in the future to map the content of the instructional guides to the California Department of Education, Early Education and Support Division’s California Early Childhood Educator Competencies. The “Competency Areas to Consider” below are listed in this instructional guide as a preliminary exploration of how particular competency areas might be addressed through these learning experiences.

- Child Development and Learning
- Relationships, Interactions, and Guidance
• Learning Environments and Curriculum
• Professionalism
Before You Start

Volume 3 of the California Preschool Learning Foundations presents the final two domains of learning and development produced by the California Department of Education as part of its early learning system. The foundations are the heart of the system (California Preschool Learning Foundations, Volume 3, p. xvi), and this volume provides a unique opportunity for students to become acquainted with all nine domains. There are four learning experiences in this instructional guide that, when used as a set, can provide opportunities for students to explore all nine domains and how they relate to one another. Each of these learning experiences focuses on one of the two domains in Volume 3 and a selected domain or set of domains from either Volume 1 or Volume 2.

Depending on the emphasis of any particular course, any of these four learning experiences can be used independently of the others or all four can be used in sequence or combination. The following list of these four learning experiences describes the domains addressed in each one:


- Science domain, Learning Experience 11—“Exploring the Relationship of the Science Domain to the Mathematics Domain and the Language and Literacy Domain”—focuses on the relationship of the science domain in Volume 3 to the mathematics and language and literacy domains in Volume 1.

- Science domain, Learning Experience 12—“Exploring Relationships of the Science Domain to the Physical Development Domain and the Health Domain”—focuses on the relationship of the science domain to the domains of physical development and...
Thus each of the nine domains is explored in relation to at least one other domain, and the domains in Volume 3 are highlighted. The specific domains explored in relation to one another are grouped in a way that highlights strong relationships between the strands of these domains. This is intended to provide students with an understanding of how these various domains in the foundations are integrated in early learning and development.

Each of the learning experiences guides students through domains using different instructional methodologies. These methodologies could be used as presented or used flexibly across several sets of domains.

This learning experience will focus on how the history–social science domain of Volume 3 relates to the domain of visual and performing arts in Volume 2.

Before beginning to work across domains, instructors might want to have students do Learning Experience 3 entitled “Piecing Together the History–Social Science Domain Content Puzzle” to ensure they are familiar with the strands of the history–social science domain, since this domain is highlighted.

Handouts of the foundations for the history–social science (Handout 1) and visual and performing arts (Handout 2) domains are provided with this learning experience. Electronic versions of these handouts will be available when this instructional guide is online at www.wested.org/facultyinitiative.

Let students know that they will be exploring some ways in which the strands of the history–social science domain from Volume 3 are related to the domain of visual and performing arts, which is in Volume 2 of the California Preschool Learning Foundations. Emphasize that this is an exploration of some selected relationships. There are several ways in which many of the domains and strands are related, and students will only be exploring some specific targeted relationships. This is intended to help them understand the many ways in which early learning is integrated across domains.

It will be helpful if students have read through the introduction to this domain before coming to class. Introduce students to the strands of the history–social science domain:

- Self and Society
- Becoming a Preschool Community Member (Civics)
- Sense of Time (History)
- Sense of Place (Geography and Ecology)
• Marketplace (Economics)

The following descriptions of these strands are taken from page 3 of the introduction to the domain in the *California Preschool Learning Foundations, Volume 3*. The descriptions are in terms that can help students see the concepts and knowledge base for young children that are represented in these strands. Note that they are underlying concepts that young children are developing and learning. Ask students to find these and read them aloud, if needed.

• Self and Society (beginning to identify with how their family does things and understand that other families and people have ways of doing things that are different or similar to what their family does)

• Civics (how to live with others and how rules work, such as taking turns to go down the slide)

• History (events that happened in the past, even before they were born, such as when their mommy was a little girl)

• Geography (the location of familiar places in relation to each other, such as knowing the way to preschool or that the park is across the street from the grocery store, and the different kinds of places where people live)

• Ecology (learning to take care of earth and animals [for example, not wasting water])

• Economics (a beginning understanding of money and the exchange of things and services, such as groceries purchased at the store)

Active Learning

Getting it started

Be sure students have at least 30 minutes to become acquainted with the domain and strand that they will work with. How much time they will need depends on the level of education and experience of the students and their familiarity with the foundations. Provide each group with a copy of the summary of the history–social science foundations (Handout 1) and the summary of the visual and performing arts domain (Handout 2). These handouts are included in this instructional guide following this Learning Experience.

Organize students into four groups of three or four, depending on the size of the class. Each group will work with all the strands of the history–social science domain and one strand of the visual and performing arts domain. Since there are four strands in that domain,
at least four groups will be needed. Pairs will work, if there are less than 12 students in the class.

Let students know that they will be looking for ways to demonstrate relationships in the content of the strands of the history–social science domain and the strands of the visual and performing arts domain. They will use the content of the four visual and performing arts strands to present the strands of the history–social science domain to the other students in their class.

Each group will represent one strand in the visual and performing arts: Visual Art, Music, Drama, or Dance. Each group will demonstrate characteristics of the history–social science domain using that strand. Instructors might ask if students have a preference for which of the visual and performing arts strands they work with. It could be advantageous to other students if each group had in it someone who was familiar with the particular visual or performing art that they were assigned to work with and felt comfortable designing a performance or presentation, but that is not necessary.

Ask each group to first read through its assigned strand in visual and performing arts. Note that each strand has the same three substrands except Drama, which has the same first substrand and a combination of the second and third substrands for its second substrand. Ask students to focus on the substrand that reflects the highest level of early development. For Visual Art, Music, and Dance, this is “Create, Invent, and Express.” For Drama, this is “Develop Skills to Create, Invent, and Express.” Ask them to discuss how they can use their strand to demonstrate something about the history–social science domain. They probably will not be able to demonstrate every strand of the history–social science domain, but ask them to see if they can do at least two.

**Keeping it going**

After they have worked for a few minutes, check with the groups to see if they have a reasonable representation of the history–social science strands. If any groups are finding it challenging to develop a presentation, open the discussion to the whole class to see if they can help each other out.

Here are some possibilities:

- A song about social roles and occupations that involves the musicians taking turns and/or supporting each other's musical turns
• A dance about a conflict and its resolution and how that leads to some kind of cooperative work
• A set of drawings of places that everyone might know and use, which are then compiled into a colorful map of some kind
• A short play about an important event in someone’s life, incorporating some kind of exchange

Putting it together
When all groups have had time to create, develop, rehearse, and feel ready to perform, ask each group in turn to share its presentation with the whole class. Follow each presentation with a short discussion about which parts of the history–social science domain were being highlighted.

Reflection
Following their presentations, ask students to respond to the following questions:

• What discoveries did you make while you were doing this?
• Did some history–social science strands seem harder to work with creatively than others?
• What new ideas about early learning and development emerged?
• Did you develop other ideas of performances you could have done? What were they?
### History–Social Science

#### Self and Society

<table>
<thead>
<tr>
<th>1.0 Culture and Diversity</th>
<th>2.0 Relationships</th>
<th>3.0 Social Roles and Occupations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>At around 48 months of age</strong></td>
<td><strong>At around 60 months of age</strong></td>
<td><strong>3.1 Play familiar adult social roles and occupations (such as parent, teacher, and doctor) consistent with their developing knowledge of these roles.</strong></td>
</tr>
<tr>
<td>1.1 Exhibit developing cultural, ethnic, and racial identity and understand relevant language and cultural practices. Display curiosity about diversity in human characteristics and practices, but prefer those of their own group.</td>
<td>2.1 Understand the mutual responsibilities of relationships; take initiative in developing relationships that are mutual, cooperative, and exclusive.</td>
<td>3.1 Exhibit more sophisticated understanding of a broader variety of adult roles and occupations, but uncertain how work relates to income.</td>
</tr>
<tr>
<td>1.1 Manifest stronger cultural, ethnic, and racial identity and greater familiarity with relevant language, traditions, and other practices. Show more interest in human diversity, but strongly favor characteristics of their own group.</td>
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# Becoming a Preschool Community Member (Civics)

## 1.0 Skills for Democratic Participation

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
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<tbody>
<tr>
<td>1.1 Identify as members of a group, participate willingly in group activities, and begin to understand and accept responsibility as group members, although assistance is required in coordinating personal interests with those of others.</td>
<td>1.1 Become involved as responsible participants in group activities, with growing understanding of the importance of considering others’ opinions, group decision making, and respect for majority rules and the views of group members who disagree with the majority.</td>
</tr>
</tbody>
</table>

## 2.0 Responsible Conduct

| 2.1 Strive to cooperate with group expectations to maintain adult approval and get along with others. Self-control is inconsistent, however, especially when children are frustrated or upset. | 2.1 Exhibit responsible conduct more reliably as children develop self-esteem (and adult approval) from being responsible group members. May also manage others’ behavior to ensure that others also fit in with group expectations. |

## 3.0 Fairness and Respect for Other People

| 3.1 Respond to the feelings and needs of others with simple forms of assistance, sharing, and turn-taking. Understand the importance of rules that protect fairness and maintain order. | 3.1 Pay attention to others’ feelings, more likely to provide assistance, and try to coordinate personal desires with those of other children in mutually satisfactory ways. Actively support rules that protect fairness to others. |

## 4.0 Conflict Resolution

| 4.1 Can use simple bargaining strategies and seek adult assistance when in conflict with other children or adults, although frustration, distress, or aggression also occurs. | 4.1 More capable of negotiating, compromising, and finding cooperative means of resolving conflict with peers or adults, although verbal aggression may also result. |

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Sense of Time
(History)

1.0 Understanding Past Events

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Recall past experiences easily and enjoy hearing stories about the past, but require adult help to determine when past events occurred in relation to each other and to connect them with current experience.</td>
<td>1.1 Show improving ability to relate past events to other past events and current experiences, although adult assistance continues to be important.</td>
</tr>
</tbody>
</table>

2.0 Anticipating and Planning Future Events

| 2.1 Anticipate events in familiar situations in the near future, with adult assistance. | 2.1 Distinguish when future events will happen, plan for them, and make choices (with adult assistance) that anticipate future needs. |

3.0 Personal History

| 3.1 Proudly display developing skills to attract adult attention and share simple accounts about recent experiences. | 3.1 Compare current abilities with skills at a younger age and share more detailed autobiographical stories about recent experiences. |

4.0 Historical Changes in People and the World

| 4.1 Easily distinguish older family members from younger ones (and other people) and events in the recent past from those that happened “long ago,” although do not readily sequence historical events on a timeline. | 4.1 Develop an interest in family history (e.g., when family members were children) as well as events of “long ago,” and begin to understand when these events occurred in relation to each other. |
Sense of Place  
(Geography and Ecology)

1.0 Navigating Familiar Locations

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Identify the characteristics of familiar locations such as home and school, describe objects and activities associated with each, recognize the routes between them, and begin using simple directional language (with various degrees of accuracy).</td>
<td>1.1 Comprehend larger familiar locations, such as the characteristics of their community and region (including hills and streams, weather, common activities) and the distances between familiar locations (such as between home and school), and compare their home community with those of others.</td>
</tr>
</tbody>
</table>

2.0 Caring for the Natural World

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Show an interest in nature (including animals, plants, and weather) especially as children have direct experience with them. Begin to understand human interactions with the environment (such as pollution in a lake or stream) and the importance of taking care of plants and animals.</td>
<td>2.1 Show an interest in a wider range of natural phenomena, including those not directly experienced (such as snow for a child living in Southern California), and are more concerned about caring for the natural world and the positive and negative impacts of people on the natural world (e.g., recycling, putting trash in trash cans).</td>
</tr>
</tbody>
</table>

3.0 Understanding the Physical World Through Drawings and Maps

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 Can use drawings, globes, and maps to refer to the physical world, although often unclear on the use of map symbols.</td>
<td>3.1 Create their own drawings, maps, and models; are more skilled at using globes, maps, and map symbols; and use maps for basic problem solving (such as locating objects) with adult guidance.</td>
</tr>
</tbody>
</table>
### Marketplace (Economics)

#### 1.0 Exchange

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.1</strong> Understand ownership, limited supply, what stores do, give-and-take, and payment of money to sellers. Show interest in money and its function, but still figuring out the relative value of coins.</td>
<td><strong>1.1</strong> Understand more complex economic concepts (e.g., bartering; more money is needed for things of greater value; if more people want something, more will be sold).</td>
</tr>
</tbody>
</table>

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## Visual Art

### 1.0 Notice, Respond, and Engage

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>At around 48 months</td>
<td>At around 60 months</td>
</tr>
<tr>
<td>1.1</td>
<td>Notice and communicate about objects or forms that appear in art.</td>
</tr>
<tr>
<td>1.2</td>
<td>Create marks with crayons, paints, and chalk; and then identify them.</td>
</tr>
<tr>
<td>1.3</td>
<td>Enjoy and engage with displays of visual art, inside or outside the classroom.</td>
</tr>
<tr>
<td>1.4</td>
<td>Choose own art for display in the classroom or for inclusion in a portfolio or book.</td>
</tr>
<tr>
<td>1.1</td>
<td>Communicate about elements appearing in art (such as line, texture, or perspective), and describe how objects are positioned in the artwork.</td>
</tr>
<tr>
<td>1.2</td>
<td>Begin to plan art and show increasing care and persistence in completing it.</td>
</tr>
<tr>
<td>1.3</td>
<td>Enjoy and engage with displays of visual art. May expand critical assessment of visual art to include preferences for types of artwork or art activities.</td>
</tr>
<tr>
<td>1.4</td>
<td>Choose own art for display in the classroom or for inclusion in a portfolio or book and explain her or his ideas in some detail.</td>
</tr>
</tbody>
</table>

### 2.0 Develop Skills in Visual Art

| 2.1 | Make straight and curved marks and lines; begin to draw rough circle shapes. |
| 2.2 | Begin to create paintings or drawings that suggest people, animals, and objects. |
| 2.1 | Draw single circle and add lines to create representations of people and things. |
| 2.2 | Begin to create representative paintings or drawings that approximate or depict people, animals, and objects. |

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### 2.0 Develop Skills in Visual Art (Continued)

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.3 Make somewhat regular-shaped balls and coils out of dough or clay.</td>
<td>2.3 Make more representational forms out of dough or clay, using tools (for example, a rolling pin or a garlic press).</td>
</tr>
<tr>
<td>2.4 Begin to use paper and other materials to assemble simple collages.</td>
<td>2.4 Use paper and other materials to make two- and three-dimensional assembled works.</td>
</tr>
<tr>
<td>2.5 Begin to recognize and name materials and tools used for visual arts.</td>
<td>2.5 Recognize and name materials and tools used for visual arts.</td>
</tr>
<tr>
<td>2.6 Demonstrate some motor control when working with visual arts tools.</td>
<td>2.6 Demonstrate increasing coordination and motor control when working with visual arts tools.</td>
</tr>
</tbody>
</table>

### 3.0 Create, Invent, and Express Through Visual Art

<table>
<thead>
<tr>
<th>3.1 Create art and sometimes name the work.</th>
<th>3.1 Intentionally create content in a work of art.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.2 Begin to draw figures or objects.</td>
<td>3.2 Draw more detailed figures or objects with more control of line and shape.</td>
</tr>
<tr>
<td>3.3 Begin to use intensity of marks and color to express a feeling or mood.</td>
<td>3.3 Use intensity of marks and color more frequently to express a feeling or mood.</td>
</tr>
</tbody>
</table>

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## Music

### 1.0 Notice, Respond, and Engage

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Sustain attention and begin to reflect verbally about music; demonstrate familiarity with words that describe music.</td>
<td>1.1 Verbally reflect on music and describe music by using an expanded vocabulary.</td>
</tr>
<tr>
<td>1.2 Recognize simple repeating melody and rhythm patterns.</td>
<td>1.2 Demonstrate more complex repeating melody and rhythm patterns.</td>
</tr>
<tr>
<td>1.3 Identify the sources of a limited variety of musical sounds.</td>
<td>1.3 Identify the sources of a wider variety of music and music-like sounds.</td>
</tr>
<tr>
<td>1.4 Use body movement freely to respond loosely to beat—loud versus quiet (dynamics)—and tempo.</td>
<td>1.4 Use body movement freely and more accurately to respond to beat, dynamics, and tempo of music.</td>
</tr>
</tbody>
</table>

### 2.0 Develops Skills in Music

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Begin to discriminate between different voices and certain instrumental and environmental sounds. Follow words in a song.</td>
<td>2.1 Become more able to discriminate between different voices and various instrumental and environmental sounds. Follow words in a song.</td>
</tr>
<tr>
<td>2.2 Explore vocally; sing repetitive patterns and parts of songs alone and with others.</td>
<td>2.2 Extend vocal exploration; sing repetitive patterns and entire songs alone and with others in wider ranges of pitch.</td>
</tr>
</tbody>
</table>

### 3.0 Create, Invent, and Express Through Music

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 Explore vocal and instrumental skills and use instruments to produce simple rhythms and tones.</td>
<td>3.1 Continue to apply vocal and instrumental skills and use instruments to produce more complex rhythms, tones, melodies, and songs.</td>
</tr>
<tr>
<td>3.2 Move or use body to demonstrate beat and tempo, often spontaneously.</td>
<td>3.2 Move or use body to demonstrate beat, tempo, and style of music, often intentionally.</td>
</tr>
<tr>
<td>3.3 Improvise vocally and instrumentally.</td>
<td>3.3 Explore, improvise, and create brief melodies with voice or instrument.</td>
</tr>
</tbody>
</table>
Drama

1.0 Notice, Respond, and Engage

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Demonstrate an understanding of simple drama vocabulary.</td>
<td>1.1 Demonstrate a broader understanding of drama vocabulary.</td>
</tr>
<tr>
<td>1.2 Identify preferences and interests related to participating in drama.</td>
<td>1.2 Explain preferences and interests related to participating in drama.</td>
</tr>
<tr>
<td>1.3 Demonstrate knowledge of simple plot of a participatory drama.</td>
<td>1.3 Demonstrate knowledge of extended plot and conflict of a participatory drama.</td>
</tr>
</tbody>
</table>

2.0 Develop Skills to Create, Invent, and Express Through Drama

| 2.1 Demonstrate basic role-play skills with imagination and creativity. | 2.1 Demonstrate extended role-play skills with increased imagination and creativity. |
| 2.2 Add props and costumes to enhance dramatization of familiar stories and fantasy play with peers. | 2.2 Create and use an increasing variety of props, costumes and scenery to enhance dramatization of familiar stories and fantasy play with peers. |

Dance

1.0 Notice, Respond, and Engage

| 1.1 Engage in dance movements. | 1.1 Further engage and participate in dance movements. |
| 1.2 Begin to understand and use vocabulary related to dance. | 1.2 Connect dance terminology with demonstrated steps. |
| 1.3 Respond to instruction of one skill at a time during movement, such as a jump or fall. | 1.3 Respond to instruction of more than one skill at a time in movement, such as turning, leaping, and turning again. Often initiate a sequence of skills. |
| 1.4 Explore and use different steps and movements to create or form a dance. | 1.4 Use understanding of different steps and movements to create or form a dance. |
### 2.0 Develop Skills in Dance

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Begin to be aware of own body in space.</td>
<td>2.1 Continue to develop awareness of body in space.</td>
</tr>
<tr>
<td>2.2 Begin to be aware of other people in dance or when moving in space.</td>
<td>2.2 Show advanced awareness and coordination of movement with other people in dance or when moving in space.</td>
</tr>
<tr>
<td>2.3 Begin to respond to tempo and timing through movement.</td>
<td>2.3 Demonstrate some advanced skills in responding to tempo and timing through movement.</td>
</tr>
</tbody>
</table>

### 3.0 Create, Invent, and Express Through Dance

<table>
<thead>
<tr>
<th>3.1 Begin to act out and dramatize through music and movement patterns.</th>
<th>3.1 Extend understanding and skills for acting out and dramatizing through music and movement patterns.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.2 Invent dance movements.</td>
<td>3.2 Invent and recreate dance movements.</td>
</tr>
<tr>
<td>3.3 Improvise simple dances that have a beginning and an end.</td>
<td>3.3 Improvise more complex dances that have a beginning, middle, and an end.</td>
</tr>
<tr>
<td>3.4 Communicate feelings spontaneously through dance and begin to express simple feelings intentionally through dance when prompted by adults.</td>
<td>3.4 Communicate and express feelings intentionally through dance.</td>
</tr>
</tbody>
</table>

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History–Social Science

**Self and Society:** beginning to identify with how their family does things and understand that other families and people have ways of doing things that are different or similar to what their family does.

**Becoming a Preschool Community Member (Civics):** how to live with others and how rules work, such as taking turns to go down the slide.
History–Social Science

Marketplace (Economics): a beginning understanding of money and the exchange of things and services, such as groceries purchased at the store.

Sense of Time (History): events that happened in the past, even before they were born, such as when their mommy was a little girl.

Sense of Place (Geography): the location of familiar places in relation to each other, such as knowing the way to preschool or that the park is across the street from the grocery store) and the different kinds of places where people live.

(Ecology) learning to take care of earth and animals.
Visual and Performing Arts

**Visual Art**

1.0 Notice, Respond, and Engage
2.0 Develop Skills in Visual Art
3.0 Create, Invent, and Express Through Visual Art

**Music**

1.0 Notice, Respond, and Engage
2.0 Develops Skills in Music
3.0 Create, Invent, and Express Through Music
Visual and Performing Arts

**Drama**
1.0 Notice, Respond, and Engage
2.0 Develops Skills to Create, Invent, and Express through Drama

**Dance**
1.0 Notice, Respond, and Engage
2.0 Develop Skills in Dance
3.0 Create, Invent, and Express Through Dance

History–Social Science

**Performance/Presentation Examples**
- A song about social roles and occupations that involves the musicians taking turns and/or supporting each other’s musical turns
- A dance about a conflict and its resolution and how that leads to some kind of cooperative work
History–Social Science

• A set of drawings of places that everyone might know and use, which are then compiled into a colorful map of some kind

• A short play about an important event in someone’s life, incorporating some kind of exchange

• What discoveries did you make while you were doing this?

• Did some history–social science strands seem harder to work with creatively than others?
History–Social Science

- What new ideas about early learning and development emerged?
- Did you develop other ideas of performances you could have done? What were they?
CDE/ECE Faculty Initiative Project Instructional Guide


Science Domain
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CDE/ECE Faculty Initiative Project
California Preschool Learning Foundations, Volume 3

Introduction to the Instructional Guide
for the
Science Domain

This instructional guide for the science domain is organized to support faculty in addressing the content and research base of the science foundations. Accordingly, the instructional guide for these foundations is designed to support faculty as they deepen students’ understanding of the structure, content, and research base of the foundations. In the instructional guides, the word “students” refers to college students and not children in the preschool setting.

The guide is not intended to support faculty in helping students learn to assess children’s learning and development related to the science foundations. It is also not intended to support faculty in helping students learn how to design curriculum related to children’s development of science knowledge and skills. Curriculum development is addressed in the instructional guides for the California Preschool Curriculum Framework, Volume 1 and California Preschool Curriculum Framework, Volume 2.

Instructional guides have been developed for these publications:

- California Preschool Learning Foundations, Volume 1
- California Preschool Learning Foundations, Volume 2
- California Preschool Curriculum Framework, Volume 1
- California Preschool Curriculum Framework, Volume 2

These instructional guides are available on the Faculty Initiative Project Web site, http://www.wested.org/facultyinitiative.

The science domain of the California Preschool Learning Foundations, Volume 3 consists of four strands, each with two substrands:

Scientific Inquiry
- 1.0 Observation and Investigation
- 2.0 Documentation and Communication
Physical Sciences
• 1.0 Properties and Characteristics of Nonliving Objects and Materials
• 2.0 Changes in Nonliving Objects and Materials

Life Sciences
• 1.0 Properties and Characteristics of Living Things
• 2.0 Changes in Living Things

Earth Sciences
• 1.0 Properties and Characteristics of Earth Materials and Objects
• 2.0 Changes in the Earth

The learning experiences in this instructional guide allow faculty to address all the strands in an integrated approach or to focus on individual strands.

Because Volume 3 of the foundations completes the publication of California’s early learning and development foundations, there are a number of learning experiences that refer back to domains of learning and development that are found in previous volumes. Wherever possible, relevant page numbers as well as possible connections to the domains in California Preschool Learning Foundations, Volume 1 and California Preschool Learning Foundations, Volume 2 are provided.

When the Preschool English Learners: Principles and Practices to Promote Language, Literacy, and Learning—A Resource Guide (Second Edition) and the first volumes of the California Preschool Learning Foundations and the California Preschool Curriculum Framework were published, the terms “preschool English learners” and “English-language development” were used. Please note that this instructional guide is using the term “young dual language learners” instead of “preschool English learners” or “young English language learners” in order to be consistent with the current policy of the California Department of Education/Early Education and Support Division (formerly Child Development Division). However, the domain in the foundations and curriculum frameworks is still referred to as the “English–language development” domain.


Student Learning Outcomes
To support faculty in decisions regarding how and where they can best use the California Preschool Learning Foundations, Volume 3 in their course work or across their program, the Student Learning Outcomes (SLOs) developed by the Curriculum Alignment Project (CAP) (http://www.childdevelopment.org/cs/cdtc/print/htdocs/services_cap.htm) for the eight core lower division early childhood courses have been mapped onto each learning experience in this instructional guide for consideration. At the beginning of each learning experience, the Preview of the Learning Experience will provide the list of courses that have been mapped onto the specific learning experience.
The Curriculum Alignment Project's SLOs, objectives, and examples of course content and topics indicated for this instructional guide for the California Preschool Learning Foundations, Volume 3 can be found in Appendix A of this instructional guide. Refer to Appendix A of this instructional guide for detailed and specific student learning outcomes, objectives, and examples of course content and topics. Refer to the Student Learning Outcomes Index for an overview of this instructional guide mapping listed by domain. The location of the SLO Index is listed in the Table of Contents for this instructional guide.

These SLOs are organized by the CAP core lower division early childhood courses. This is not an exhaustive list, and faculty might find ways to use the learning experiences to address SLOs in ways other than what has been indexed. Working through these selected learning experiences does not guarantee the achievement of any student learning outcome or objective; it is understood that students achieve student outcomes through repeated engagement with information and experiences that build competence.

To assist faculty in using these SLOs as supports for decision making, the instructional guide learning experiences are indexed first by California Preschool Learning Foundations, Volume 3 domains and then by CAP courses and SLOs so that faculty can select what is most relevant to their particular needs. Student learning outcomes are matched to specific learning experiences in the instructional guide that will support attainment of that outcome. Not all student learning outcomes map onto the specific content of the instructional guide.

Refer to the Student Learning Outcomes Index for an overview of this instructional guide mapping listed by domain. Refer to Appendix A of this instructional guide for more detailed and specific student learning outcomes, objectives, and examples of course content and topics.

**Instructional Methodologies**

Each learning experience is written to include a variety of instructional methodologies. This is intended to provide varied learning experiences for students as they encounter the foundations. It also provides another variable for faculty to use in deciding which learning experiences will best suit the needs of their students and programs. In this instructional guide, these methodologies are identified for each learning experience and are indexed so that faculty can get an overview of which methodologies are used across
all the learning experiences. The location of the Instructional Methodologies Index is listed in the Table of Contents for this instructional guide. This index in this instructional guide also includes, for the first time, working definitions of each of the instructional methodologies used across the learning experiences.

**California Early Childhood Educator Competency Areas**
The Faculty Initiative Project will undertake a comprehensive process in the future to map the content of the instructional guides to the *California Early Childhood Educator Competencies*. In this instructional guide, competency areas are listed for each learning experience that could be addressed in the learning experience. This list can be found at the beginning of each learning experience on the page(s) labeled Preview of Learning Experience 1 and so forth. These are preliminary connections and are not meant to be exhaustive. Faculty will find more connections in their courses to both competency areas and competency contexts as they become more familiar with them. They are listed in this instructional guide as an initial exploration of how particular competency areas might be addressed through these learning experiences. There is no index for them in this instructional guide due to the preliminary nature of the mapping.

**Learning Experiences and Instructional Themes**
The instructional guide is composed of 25 learning experiences that can be used to support students in learning about the foundations in the *California Preschool Learning Foundations, Volume 3*. They are presented by domain, and each learning experience is designed to address one of six instructional themes:

- Helping students connect to their own experiences with the domain
- Learning the content of the domain foundations
- Understanding the rationale and research base of the domain
- Connecting the domain to children’s families and cultural communities
- Exploring the foundations in the early care and education setting
- Connecting the foundations across domains

These themes are not explicitly identified within each learning experience. Because of the holistic nature of development for children and for students, many of the learning experiences cross themes. Nevertheless, to support faculty decision making, the dominant theme for each learning experience is identified in the Organizational Chart for the Instructional Guide for the *California Preschool Learning Foundations, Volume 3*. 
Structure of the Learning Experiences in the *Instructional Guide for the California Preschool Learning Foundations, Volume 3*

**Preview Page(s) Overview**

Each learning experience is introduced with a preview page(s) containing information that will help faculty get an overview of that learning experience. Each of these Preview of Learning Experience page(s) contains:

- a focus statement that describes what students will experience in the learning experience,
- a list of the Curriculum Alignment Project (CAP) courses for which CAP student learning outcomes have been mapped onto the learning experience,
- a list of the instructional methodologies used in the learning experience, and
- a list of possible California Early Childhood Educator Competency Areas to consider that could be addressed in this learning experience.

**Before You Start: Information For Preparation**

Following the Preview of Learning Experience page(s), each learning experience begins with a section titled *Before You Start*. This section can be found on the first page of every learning experience following the preview page(s) and provides an overview to help faculty decide if this learning experience fits into their purpose and goals for a class session. In this section there might also be prior readings, background information, connections to other Early Education and Support Division (formerly Child Development Division) publications, or logistical details to consider before engaging with students.

**Instructional Components**

*Information Delivery*

This component is designed to introduce specific content to students in the class setting. The delivery of information may be brief or long and may be composed of a single topic or several related topics. *Information Delivery* might include these elements:

- Lecture content
- Readings or video
- Direct engagement with content in an active way

*Active Learning*

This component describes learning sessions that can be conducted within the time frame of a single class or over several class sessions by individuals, pairs, small groups, or the whole class. These learning sessions are intended to be active,
thoughtful, challenging, and relevant to the content. Active learning is further divided into these segments:

- **Getting it started**
- **Keeping it going**
- **Taking it further**
- **Another approach/way**

Not every learning experience contains all of these segments of active learning. They are included when they are relevant and enhance learning or instructional possibilities.

**Reflection**
Questions for reflection are offered that will challenge students to reflect on their experiences with the content and process of the learning experience. These questions usually ask students to reflect on their experiences and then come to some action or make a decision based on those reflections. This is intended to establish habits of reflection in students that can be carried over to their work with colleagues and young children and families.

**Deeper Understanding**
Topics for additional study or research by students are included at the end of some learning experiences. Again, these are included as they are relevant and will enhance or extend learning. They are intended to take students into deeper engagement with the concepts, issues, and/or research base that are related to the content of the domain.

**Online Options**
Suggestions are made for ways to implement or adapt active learning to student work that is done online. This might be in online courses or as online assignments for face-to-face courses. These are not meant to be exhaustive but to indicate the kinds of adaptations that can be made to support faculty and students who work online.

**PowerPoint Presentations**
Throughout the instructional guide, you will sometimes see this symbol in the left margin of the instructional components. This symbol indicates that there are PowerPoint slides that correspond to a particular part of the learning experience.

**Additional Thoughts**
The learning experiences in this guide are written to be adapted and, therefore, are not intended to be used as scripts. Each learning experience provides a framework within which faculty will need to plan and reflect on what will work best with their particular students.
The California Department of Education has published a resource guide titled *Preschool English Learners: Principles and Practices to Promote Language, Literacy, and Learning—A Resource Guide (Second Edition)*. This guide provides foundational information regarding language and literacy development in all children, with special attention to English-language development in children for whom English is not their home language. Many faculty have found this publication to be helpful in supporting their own students who are learning about the foundations and the language of early care and education. The Faculty Initiative Project has produced an instructional guide for this publication, the *Instructional Guide for the Preschool English Learners: Principles and Practices to Promote Language, Literacy, and Learning—A Resource Guide (Second Edition)*, which is available online at www.wested.org/facultyinitiative/pelguide.html.
### Map of the Foundations

#### Science

**1.0 Observation and Investigation**

<table>
<thead>
<tr>
<th>Age</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>At around 48 months of age</td>
<td>Wandering why the toy car does not roll down the ramp, picks up the car and discovers that it is missing one wheel. When building with blocks, puts more and more blocks on top to find out how tall the tower can get without falling apart. Participates in preparing play dough, and asks, &quot;How did it turn blue?&quot; Sees a snail and wonders, &quot;Why is it hiding inside? When is it coming out?&quot; A child who is nonverbal gestures to his friend to join in observing how the guinea pigs (the class pets) eat their food. He points, on his communication board, to the photo of a child eating and then points to the guinea pigs. During lunchtime, mixes her sour cream with apple sauce, and notices that sour cream changes its color. Then tries it out to find out what it tastes like. Picks up small &quot;roidy&quot; bugs from under a rock and asks, &quot;Why do they roll up in a ball?&quot;</td>
</tr>
<tr>
<td>At around 60 months of age</td>
<td>When playing in the block area, creates a sloped ramp with blocks and rolls different toy cars down the ramp. Checks which car goes the farthest when rolling down the ramp. While digging in the mud, sees a worm and wonders, &quot;Does it live in the ground? I see another one. Is it their home?&quot; Another child observes the worm and asks, &quot;Why does the worm not have eyes? How does it see to move?&quot; On the playground, looks up and asks the teacher, &quot;How come I can see the moon in the daytime?&quot; Observes a ladybug in the yard and asks what would happen if she put it in a box with dirt and grass. Asks, &quot;Can it be our class pet?&quot; While sorting different rocks, picks up one of the rocks and washes it with soap and water. Then gets the magnifying glass to observe it more closely. On a nature walk in the preschool yard, notices holes in the ground, points to the holes, and calls out to get the teacher's attention, and asks, &quot;What's there?&quot;</td>
</tr>
</tbody>
</table>
Science: Connecting to Our Own Experiences

Focus Statement

Students become familiar with the science foundations by identifying examples of the science domain content from childhood experiences, recent discoveries, and topics of interest.

Curriculum Alignment Project (CAP) Student Learning Outcomes

The Curriculum Alignment Project’s (CAP) lower division eight courses and student learning outcomes are mapped onto each instructional guide learning experience. See Appendix A for the specific student learning outcomes, objectives, and examples of course content and topics for the courses listed below.

- Child, Family and Community
- Introduction to Curriculum
- Principles and Practices of Teaching Young Children
- Teaching in a Diverse Society
- Practicum-Field Experience

Instructional Methodologies

- Brainstorming
- Class discussion
- Creation of a visual representation
- Pairs or small groups

California Early Childhood Educator Competency Areas to Consider

The Faculty Initiative Project will undertake a comprehensive process in the future to map the content of the instructional guides to the California Department of Education, Early Education and Support Division’s California Early Childhood Educator Competencies. The “Competency Areas to Consider” below are listed in this instructional guide as a preliminary exploration of how particular competency areas might be addressed through these learning experiences.
• Culture, Diversity, and Equity
• Family and Community Engagement
• Learning Environments and Curriculum
• Professionalism
Science: Connecting to Our Own Experiences

Before You Start

The introduction to the science domain tells us that “... scientific content in preschool should be based on children’s existing intuitive knowledge and interests related to science and on concepts children can explore directly in their everyday environment (California Preschool Learning Foundations, Volume 3, p. 55).”

This learning experience is intended to support students in recognizing that science is a part of our everyday lives, just as it is a part of the everyday lives of young children. The focus in this experience is on the three content strands of this domain: Physical Sciences, Life Sciences, and Earth Sciences. Connecting to the content of the Scientific Inquiry strand is done in this instructional guide in Learning Experience 2 of this domain titled “Connecting to Children's Experiences with Scientific Inquiry Through Ramp Exploration.”

As instructors work through this learning experience, it might be helpful to acknowledge and affirm that students will have differing experiences and levels of knowledge relating to the strands being explored here. This is similar to what is found with children in the early care and education setting, and it will be important to point out to students that they have probably learned a great deal from each other in their conversations, as children will also in their explorations with other children and adults.

It will also be important to note and point out the role of language in these experiences and to think about what that might mean for dual language learners or for children with disabilities as they demonstrate the behaviors described in the foundations. Similarly, cultural and community backgrounds may shape the way in which children understand scientific concepts. Be familiar with the section in the introduction to this domain that begins on page 51 of the California Preschool Learning Foundations, Volume 3 entitled “Individual, Cultural, and Linguistic Variations.” Instructors might see these variations in students as they work through this learning experience.

A sample handout, Handout 1, included with this learning experience, is for students use when listing examples from their experiences with the substrands in the science domain. An electronic version of this handout will be available when this instructional guide is online at www.wested.org/facultyinitiative.
natural curiosity about objects and events in their environment (California Preschool Learning Foundations, Volume 3, p. 48)."

Explore the descriptions of the strands in the science domain that are presented in the introduction to the domain. These descriptions present the concepts that relate to “. . . children’s existing intuitive knowledge and interests related to science and on concepts children can explore directly in their everyday environment (California Preschool Learning Foundations, Volume 3, p.55).” This will help students understand the content of the domain in relation to the exercise and discussion in the "Active Learning" segment.

Physical Sciences
The following descriptions will be found on pages 56 and 57 of the introduction to the science domain in the California Preschool Learning Foundations, Volume 3:

- Properties of objects, such as sound, light and shadow, weight, flexibility, and different materials, including solid and nonsolid substances
- Changes in objects such as taking apart, combining and mixing, changing from solid to liquid
- Movement of objects such as in pushing, rolling, throwing
- Relationship of properties to movement such as pushing heavy objects versus pushing light objects

Life Sciences
The following descriptions can be found on pages 57 and 58 of the introduction to the science domain in the California Preschool Learning Foundations, Volume 3:

- Properties and characteristics of living things, such as the difference between living and nonliving things, appearances, habitats, behaviors, and changes and growth over time
- Beginning understanding that all living things (humans, plants, animals) have basic needs such as food and water

Earth Sciences
The following descriptions can be found on pages 58 and 59 of the introduction to the science domain in the California Preschool Learning Foundations, Volume 3:

- Characteristics and properties of earth materials such as rocks, soil, air, and water in children’s immediate environments
• Exploration (observing, describing, and documenting) changes in the earth, including the tracking of objects in the sky such as the sun, moon, stars
• Tracking of weather and seasons

**Getting it started**
Divide students into pairs or triads. Ask each pair or triad to work with the three strands of Earth Sciences, Physical Sciences, and Life Sciences.

Ask students to come up with some ideas in each domain for the following three categories that are on the handout:

1. Write down something they know about from their childhood in relation to these concepts.
   For example, in relation to Earth Sciences, what do they know about objects in the sky, kinds of rocks, or what pollutes water or tides.

2. Briefly describe a recent discovery relating to the concepts in any of these three strands.
   For example, in relation to Physical Sciences, they might have recently discovered how to move a heavy object or they might have discovered that moving around in a space such as an auditorium or classroom or changing locations affected the way they could hear something.

3. Briefly describe something they are curious about in relation to these concepts.
   For example, in relation to the Life Sciences, they might wonder why there seem to be increasing numbers of coyotes in urban areas or about the nutritional value of the foods in some restaurants.

**Keeping it going**
Ask each pair or triad to make a list of as many examples as they can think of for each of these questions. Suggest that students take 10–15 minutes to complete this process. Ask students to write their examples on large Post-it® Notes so that they can be posted for all to read.

When they have finished this, organize their results for each domain for each question in some way so that everything is visible to all students. A large chart paper for each question in each strand would work for this.
When students can see all responses, ask the following questions:

- Where are there similarities?
- Are there differences relating to experiences in urban, rural, coastal, or mountain settings or experiences?
- Which responses reflect experiences in formal schooling and which reflect experiences in everyday lives?
- Are values or cultural differences in beliefs about natural events and materials reflected in the responses?
- What do these responses suggest about working with these domains in early care and education settings?

**Online Options**

Students could post their completed handouts online. Students would then review all the handouts and write individual responses to the questions. These responses would be submitted to the instructor. If the class has online-discussion capability, an instructor led class discussion of the responses could occur online.

**Taking it further**

Ask students to develop a visual representation of one of their experiences. Each pair could choose one of their examples and do a drawing, painting, collage, sculpture or creation from any other media that might be available. Develop a gallery for display.
Exploring Our Personal Connections to Physical Sciences, Life Sciences, and Earth Sciences

<table>
<thead>
<tr>
<th>Science Domain</th>
<th>Something I learned as a child</th>
<th>Something I recently discovered</th>
<th>Something I am curious about</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical Sciences</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Substrand: Properties and Characteristics of Nonliving Objects and Materials</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
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<td>Substrand: Properties and Characteristics of Earth Materials and Objects</td>
<td></td>
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<tr>
<td>Substrand: Changes in the Earth</td>
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</tbody>
</table>
“Young children, like scientists, have a sense of wonder and natural curiosity about objects and events in their environment (California Preschool Learning Foundations, Volume 3, p. 48).”
Science

The science foundations include content based on “...children’s existing intuitive knowledge and interests related to science and on concepts children can explore directly in their everyday environment.”

*(California Preschool Learning Foundations, Volume 3, p. 55)*

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Science

**Physical Sciences** foundations explore:

- Properties of objects (sound, light and shadow, weight, flexibility) and different materials including solid and nonsolid substances.
Science

**Physical Sciences** foundations explore:

- Changes in objects (taking apart, combining and mixing, solid to liquid).
- Movement of objects
- Relationship of properties to movement such as pushing heavy versus light objects.

Science

**Life Sciences** foundations explore:

- Properties and characteristics of living things, such as the difference between living and nonliving things, appearances, habitats, behaviors, and changes and growth over time.
- A beginning understanding that all living things (humans, plants, animals) have basic needs such as food and water.
Science

**Earth Sciences** foundations relate to:

- Characteristics and properties of earth materials such as rocks, soil, air, and water in children’s immediate environments.
- Observing and describing changes in the earth, such as in objects in the sky like the sun, moon, and stars.
- Tracking of weather and seasons.

### Table: Exploring Our Personal Connections to Physical Sciences, Life Sciences, and Earth Sciences

<table>
<thead>
<tr>
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</table>
Science

- Where are there similarities?
- Are there differences relating to experiences in urban, rural, coastal, or mountain settings or experiences?
- Which responses reflect experiences in formal schooling and which reflect experiences in everyday lives?

Science

- Are values or cultural differences in beliefs about natural events and materials reflected in the responses? What do these responses suggest about working with these domains in early care and education settings?
Science: Connecting to Children’s Experience with Scientific Inquiry Through Ramp Exploration

Focus Statement

Students explore the Scientific Inquiry strand by experiencing firsthand an activity that children often do in early care and education settings—playing with ramps. Students will identify and reflect on the different elements of scientific inquiry they use during their play.

Curriculum Alignment Project (CAP) Student Learning Outcomes

The Curriculum Alignment Project’s (CAP) lower division eight courses and student learning outcomes are mapped onto each instructional guide learning experience. See Appendix A for the specific student learning outcomes, objectives, and examples of course content and topics for the courses listed below.

- Child, Growth, and Development
- Introduction to Curriculum
- Principle and Practices of Teaching Young Children
- Observation and Assessment
- Practicum-Field Experience

Instructional Methodologies

- Pairs or small groups
- Problem solving
- Reflective discussion

California Early Childhood Educator Competency Areas to Consider

The Faculty Initiative Project will undertake a comprehensive process in the future to map the content of the instructional guides to the California Department of Education, Early Education and Support Division’s California Early Childhood Educator Competencies. The “Competency Areas to Consider” below are listed in this instructional guide as a preliminary exploration of how particular competency areas might be addressed through these learning experiences.
• Child Development and Learning
• Observation, Screening, Assessment, and Documentation
• Learning Environments and Curriculum
Science: Connecting to Children’s Experience with Scientific Inquiry Through Ramp Exploration

Before You Start

This learning experience gives students a chance to experience scientific inquiry as it is described in the science domain. It will help if students have some familiarity with this domain. This can be done through either of the learning experiences in this domain that are designed to acquaint students with this domain. These are Learning Experience 3 “Piecing Together the Science Domain Content Puzzle” and Learning Experience 4 “Exploring the Content and Vocabulary of the Science Domain.”

For this experience, you will need to gather some materials and supplies that students will use to carry out their inquiries. The experience is explored here with a particular example from the Physical Sciences strand of this domain.

There are other examples that can be explored as well, and these will be discussed in the learning experience. For the example described here, the instructor will need the following materials:

- A ramp - This can be made using a board or a piece of strong, smooth cardboard with something to put under one end to raise it up, such as books or a box. It will be helpful to have the ability to set the ramp at different heights and angles.

- Objects and materials that will roll down the ramp - Include objects that will roll such as toy vehicles with rolling wheels that are different sizes and weights, balls of different sizes, marbles, balls of yarn or twine, pencils, plastic bottles, or anything you can find that will roll. Try to include objects that will not all roll at the same rate and some that will not roll in straight lines.

- Materials for students to record predictions and observations - These can be paper and pencil, electronic tablets, or laptops.

Set a tone of curiosity and enjoyment at finding out about things. There is a great deal of room in this activity for creativity on the part of both faculty and students, and be prepared to support and invite that. Students should experience this as a playful activity and then discuss how many of the foundations in the Scientific Inquiry strand they were actually carrying out.
Let students know that they will be building their own connection to the science domain, and especially the strand of Scientific Inquiry, by carrying out their own scientific inquiry. Review the foundations in this strand, either through one of the learning experiences mentioned in the “Before You Start” section or by reading through the foundations in class.

Note these important behaviors that indicate use of scientific inquiry by young children:

- Describing objects and events
- Raising questions about objects and events
- Using observation and measurement
- Comparing and contrasting objects and events
- Making predictions and checking them
- Making inferences and forming generalizations
- Recording information
- Sharing findings and explanations

Getting it started
Let students know that they will be experiencing something that young children experience frequently in their early care and education settings—playing with ramps. This is an activity that engages children in the behaviors of the science foundations during their active play and explorations. Students will be asked to record some of their thinking and observations, but none of these will be collected or reviewed. They are solely for the students’ own experience and exploration.

Set up the ramp so that everyone can see it. Form small groups of two to four, depending on the size of the class. Give every group two or three objects. Begin by asking each group to record what they think will happen when they roll their objects down the ramp. Have groups take turns rolling their objects down the ramp. Before each group rolls its objects, the instructor might ask the other groups what they think will happen. Remember to check predictions with the evidence of what did occur.

Keeping it going
Once all the objects have been used, vary the conditions of the ramp rolling. Here is where instructors and students can get creative. Try to come up with ways that objects would not be able to
roll, like changing the height of the ramp, or putting tape on the ramp at intervals to make bumps. Set up races or challenges between objects to see which will go fastest, farthest, or roll off the side.

Instructors can go through the groups again, but perhaps rotate the objects or even bring in some new ones. Ask students to think of other things they have or can find in the room that might roll down the ramp.

Before doing each of these variations, remember to ask students to make predictions and/or compare and contrast the properties of the objects such as size and weight and predict how that will affect their travel down the ramp. Following any of these variations, ask students to give descriptions of what happened and why. Remember that it is the process of inquiry that matters here, and students need not come up with detailed explanations.

**Putting it together**

After they have explored variations and different conditions of this experience, ask students when in this experience they were able to do each of the following skills:

- Describe objects and events
- Raise questions about objects and events
- Use observation and measurement
- Compare and contrast objects and events
- Make predictions and check them
- Make inferences and form generalizations
- Record information
- Share findings and explanations

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**Online Options**

Students could work individually or in small groups to conduct their ramp experiments outside of class. Students would then write brief responses to the questions in “Putting it together” and post them online. Students could then compare their own experiences with those of some of their classmates, noting which skills were reported most frequently. If the class has online-discussion capability, instructors could also ask students to discuss what they learned about the scientific inquiry process that relates to young children.
If there were any of these skills that they did not remember doing, ask them to think about times when they might have done them without realizing it. For example, they probably were making inferences and forming generalizations when they explored how weight or size would affect an object rolling down the ramp.

Point out that they have fully explored the Scientific Inquiry strand and also explored much of the strand of Physical Sciences. Instructors might also point out how much language development would be involved and also how many mathematical concepts important to young children were used in this activity.

Ask students to reflect on their experience with the following questions:

- What most surprised you about this exercise?
- What did you enjoy most?
- What did you learn?
- What questions did this exercise raise for you?
- How did this experience affect your ideas about science and young children?

Online Options
If the class has online-discussion capability, the reflection questions could be discussed online between the students and the instructor.
Science

Scientific Inquiry
(skills and language related to science)
1.0 Observation and Investigation
2.0 Documentation and Communication

Physical Sciences
1.0 Properties and Characteristics of Nonliving Objects and Materials
2.0 Changes in Nonliving Objects and Materials
Science

Life Sciences
1.0 Properties and Characteristics of Living Things
2.0 Changes in Living Things

Earth Sciences
1.0 Properties and Characteristics of Earth Materials and Objects
2.0 Changes in the Earth

Children using scientific inquiry
- Describe objects and events
- Raise questions about objects and events
- Use observation and measurement
- Compare and contrast objects and events
Science

Children

- Make predictions and check them
- Make inferences and form generalizations
- Record information
- Share findings and explanations
Science

- What most surprised you about this exercise?
- What did you enjoy most? What did you learn?
- What questions did this exercise raise for you?
- How did this experience affect your ideas about science and young children?
Science: Piecing Together the Science Domain Content Puzzle

Focus Statement

Students become familiar with the content and structure of the science foundations by assembling puzzle pieces of the strands, substrands, and foundations of the domain.

Curriculum Alignment Project (CAP) Student Learning Outcomes

The Curriculum Alignment Project’s (CAP) lower division eight courses and student learning outcomes are mapped onto each instructional guide learning experience. See Appendix A for the specific student learning outcomes, objectives, and examples of course content and topics for the courses listed below.

- Child, Growth, and Development
- Introduction to Curriculum
- Principle and Practices of Teaching Young Children
- Practicum-Field Experience

Instructional Methodologies

- Class discussion
- Pairs or small groups
- Problem solving
- Reflective discussion

California Early Childhood Educator Competency Areas to Consider

The Faculty Initiative Project undertake a comprehensive process in the future to map the content of the instructional guides to the California Department of Education, Early Education and Support Division’s California Early Childhood Educator Competencies. The “Competency Areas to Consider” below are listed in this instructional guide as a preliminary exploration of how particular competency areas might be addressed through these learning experiences.

- Child Development and Learning
• Special Needs and Inclusion
• Learning Environments and Curriculum
• Professionalism
Science:  
Piecing Together the Science Domain Content Puzzle

Before You Start

This learning experience provides students with an opportunity to explore the content and organizational structure of the science domain of the *California Preschool Learning Foundations, Volume 3*. If this is the first time some students are working with the foundations, assembling the puzzle will serve as an introduction to all the foundations because their organizational structures are nearly identical.

Students will be assembling puzzles of the domain elements, and a handout of the pieces (Handout 1) is included if instructors want to reproduce and use it in this learning experience. An electronic version of these puzzle pieces (Handout 1) will be available when this instructional guide is available online at [www.wested.org/facultyinitiative](http://www.wested.org/facultyinitiative). The pieces can be cut and packaged in envelopes prior to the class session. If preferred, instructors can also create their own puzzle pieces by using a large card or half sheet of 8 ½” x 11” paper for each strand, a paper strip for each of the substrands (including the wording “At around 48 months of age” and “At around 60 months of age” on a line below each substrand name), and a paper strip for each of the foundations. The number of puzzle sets needed will depend on how instructors decide to group the students—individually, in pairs, or in small groups.

If instructors have access to several copies of the *California Preschool Learning Foundations, Volume 3*, students could use them to compare their organization of the puzzle pieces with the actual structure of the science strands, substrands, and foundations. Two resources that students can also use to check their work are included with this instructional guide: (1) Handout 2 which lists the science domain strands, substrands, and foundations and (2) a summary of the strands, substrands, and foundations in Appendix B. An electronic version of both of these documents will be available when this instructional guide is online at [www.wested.org/facultyinitiative](http://www.wested.org/facultyinitiative).

There are four strands in the science domain: Scientific Inquiry, Physical Sciences, Life Sciences, and Earth Sciences. The first strand, Scientific Inquiry, is about the skills and specific language related to science. The other strands are about the content areas of science. Each strand has two substrands, and the substrands in the Physical Sciences, Life Sciences, and Earth Sciences are very similar. The first substrand is about properties and characteristics, and the second substrand is about changes. These two substrands represent the two unifying concepts in science. A table
summarizing these strands, substrands, and the number of foundations for each substrand can be found on page 59 of the *California Preschool Learning Foundations, Volume 3*. It is provided here for your reference:

<table>
<thead>
<tr>
<th>Strand</th>
<th>Substrand</th>
<th>Foundation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scientific Inquiry</td>
<td>1.0 Observation and Investigation</td>
<td>1.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.6</td>
</tr>
<tr>
<td></td>
<td>2.0 Documentation and Communication</td>
<td>2.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.2</td>
</tr>
<tr>
<td>Physical Sciences</td>
<td>1.0 Properties and Characteristics of Nonliving Objects and Materials</td>
<td>1.1</td>
</tr>
<tr>
<td></td>
<td>2.0 Changes in Nonliving Objects and Materials</td>
<td>2.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.2</td>
</tr>
<tr>
<td>Life Sciences</td>
<td>1.0 Properties and Characteristics of Living Things</td>
<td>1.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.4</td>
</tr>
<tr>
<td></td>
<td>2.0 Changes in Living Things</td>
<td>2.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.2</td>
</tr>
<tr>
<td>Earth Sciences</td>
<td>1.0 Properties and Characteristics of Earth Materials and Objects</td>
<td>1.1</td>
</tr>
<tr>
<td></td>
<td>2.0 Changes in the Earth</td>
<td>2.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.3</td>
</tr>
</tbody>
</table>
Summaries of the contents of each strand are found on pages 52–59. If students are not very familiar with the process of scientific inquiry or any of the three science content areas, it may be helpful to review them with the students through lecture or assigned reading and discussion.

**Getting it started**

For students who are exploring the *California Preschool Learning Foundations* for the first time, instructors may choose to begin the learning experience by asking them to read the introductory sections on pages xi–xiv of the *California Preschool Learning Foundations, Volume 3*. For example:

- “Introduction” opening paragraphs (pp. xi–xii)
- “Content of this Volume” (p. xii)
- “Organization of the Foundations” (pp. xiii–xiv)

This material provides basic background information about what the foundations are, how they’re organized, and their relation to the *Common Core State Standards*.

After the students have a basic understanding of the purpose and organizational structure of the foundations, introduce the science domain and its strands by asking students to read the section titled “Science Domain” on page xiii or presenting an overview of the four strands. Also be sure that the students understand what the designations “At around 48 months of age” and “At around 60 months of age” mean. Explanations for these designations can be found on page xiii.

**Keeping it going**

Show students the puzzle pieces and explain that they are to arrange the pieces to illustrate the organizational structure of the science domain. They can begin by finding the cards with the four strands and continue by placing the appropriate substrands and foundations under each strand. Remind students to also consider...
whether each foundation best fits under the 48 months or 60 months category.

Students can work individually or in a group, but having students work in pairs or a larger group allows for an exchange of ideas as students decide where each substrand and foundation should be placed. Promoting this kind of discussion may also prompt students to engage more fully with the content.

**Putting it together**

After the puzzles have been completed, ask students to compare their organizational structures with those of other students. Suggest that they look for and discuss any differences. Students can then check their puzzles with the actual organization of the foundations on pages 61–83 or pages 108–112 of the *California Preschool Learning Foundations, Volume 3*; with Handout 2 for this learning experience; or Appendix B of this instructional guide. If their completed puzzles are different from the organization of the foundations, ask students to explain their choices and consider why the foundations are ordered the way they are.

**Taking it further**

Ask students to read the foundations and focus on the differences between “At around 48 months of age” and “At around 60 months of age” for the same foundation. Discuss some of the following questions:

- What pattern do you notice between the foundations at the two different age groups?
- If the difference between the foundations at the two age groups is the wording “in greater detail,” “with greater detail,” or “an increased ability to,” how would you decide if a child has acquired the skills and knowledge for the foundation at the 48-month age level or the 60-month age level? What information about the child would you need?

**Online Options**

If the class has online-discussion capability, an instructor led discussion of the questions and points in this section could occur online with students.

If students have copies of the foundations with the examples, ask them to look at a few examples in each standard. If students do not have copies, ask for volunteers to read aloud the examples for a few foundations from the instructor’s copy of the *California Preschool Learning Foundations, Volume 3*. Ask students to point out how the examples illustrate the differences in
knowledge and skills that children are able to demonstrate. Discuss what students would need to help them apply the foundations in their work with children.

**Another approach/way**
Depending on the number of students in the class and the time available for this learning experience, instructors may decide to assign each group of students the substrands and foundations for only one strand rather than all four strands. The groups of students would then present their completed puzzles for their assigned strand to the whole class. Students could compare their work with the actual foundations either before or after the presentations. If students do the comparisons after the presentations, doing this step as a whole class would ensure that all the students see the correct ordering of the foundations.

**Reflection**

After the students have reviewed and discussed their puzzles, ask them to respond to the following questions:

- As you look at the completed puzzles or organizational structure of the foundations in the science domain, what stands out for you?
- Which specific foundations were easier to place? Why? Which ones were more challenging? Why?
- What are some examples you have seen of any of these foundations?
- Which strand is the least familiar to you? How could you learn more about that strand?
# Science: Putting Together the Science Domain Puzzle

## Scientific Inquiry

<table>
<thead>
<tr>
<th></th>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Observation and Investigation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrate curiosity and raise simple questions about objects and events in their environment.</td>
<td>Demonstrate curiosity and an increased ability to raise questions about objects and events in their environment.</td>
<td></td>
</tr>
<tr>
<td>Observe objects and events in the environment and describe them.</td>
<td>Observe objects and events in the environment and describe them in greater detail.</td>
<td></td>
</tr>
<tr>
<td>Begin to identify and use, with adult support, some observation and measurement tools.</td>
<td>Identify and use a greater variety of observation and measurement tools. May spontaneously use an appropriate tool, though may still need adult support.</td>
<td></td>
</tr>
<tr>
<td>Compare and contrast objects and events and begin to describe similarities and differences.</td>
<td>Compare and contrast objects and events and begin to describe similarities and differences in greater detail.</td>
<td></td>
</tr>
<tr>
<td>Make predictions and check them, with adult support, through concrete experiences.</td>
<td>Demonstrate an increased ability to make predictions and check them (e.g., may make more complex predictions, offer ways to test predictions, and discuss why predictions were correct or incorrect).</td>
<td></td>
</tr>
<tr>
<td>Make inferences and form generalizations based on evidence.</td>
<td>Demonstrate an increased ability to make inferences and form generalizations based on evidence.</td>
<td></td>
</tr>
</tbody>
</table>
### Documentation and Communication

<table>
<thead>
<tr>
<th>Record observations or findings in various ways, with adult assistance, including pictures, words (dictated to adults), charts, journals, models, and photos.</th>
<th>Record information more regularly and in greater detail in various ways, with adult assistance, including pictures, words (dictated to adults), charts, journals, models, and photos, or by tallying and graphing information.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share findings and explanations, which may be correct or incorrect, with or without adult prompting.</td>
<td>Share findings and explanations, which may be correct or incorrect, more spontaneously and with greater detail.</td>
</tr>
</tbody>
</table>

### Physical Sciences

**At around 48 months of age**

| Properties and Characteristics of Nonliving Objects and Materials |
| --- | --- |
| Observe, investigate, and identify the characteristics and physical properties of objects and of solid and nonsolid materials (size, weight, shape, color, texture, and sound). | Demonstrate increased ability to observe, investigate, and describe in greater detail the characteristics and physical properties of objects and of solid and nonsolid materials (size, weight, shape, color, texture, and sound). |

**At around 60 months of age**

<p>| Changes in Nonliving Objects and Materials |
| --- | --- |
| Demonstrate awareness that objects and materials can change; explore and describe changes in objects and materials (rearrangement of parts; change in color, shape, texture, temperature). | Demonstrate an increased awareness that objects and materials can change in various ways. Explore and describe in greater detail changes in objects and materials (rearrangement of parts; change in color, shape, texture, temperature). |</p>
<table>
<thead>
<tr>
<th>Observe and describe the motion of objects (in terms of speed, direction, the ways things move), and explore the effect of own actions (e.g., pushing, pulling, rolling, dropping) on making objects move.</th>
<th>Demonstrate an increased ability to observe and describe in greater detail the motion of objects (in terms of speed, direction, the ways things move), and to explore the effect of own actions on the motion of objects, including changes in speed and direction.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Life Sciences</strong></td>
<td></td>
</tr>
<tr>
<td><strong>At around 48 months of age</strong></td>
<td><strong>At around 60 months of age</strong></td>
</tr>
<tr>
<td><strong>Properties and Characteristics of Living Things</strong></td>
<td></td>
</tr>
<tr>
<td>Identify characteristics of a variety of animals and plants, including appearance (inside and outside) and behavior, and begin to categorize them.</td>
<td>Identify characteristics of a greater variety of animals and plants and demonstrate an increased ability to categorize them.</td>
</tr>
<tr>
<td>Begin to indicate knowledge of body parts and processes (e.g., eating, sleeping, breathing, walking) in humans and other animals.</td>
<td>Indicate greater knowledge of body parts and processes (e.g., eating, sleeping, breathing, walking) in humans and other animals.</td>
</tr>
<tr>
<td>Identify the habitats of people and familiar animals and plants in the environment and begin to realize that living things have habitats in different environments.</td>
<td>Recognize that living things have habitats in different environments suited to their unique needs.</td>
</tr>
<tr>
<td>Indicate knowledge of the difference between animate objects (animals, people) and inanimate objects. For example, expect animate objects to initiate movement and to have different insides than inanimate objects.</td>
<td>Indicate knowledge of the difference between animate and inanimate objects, providing greater detail, and recognize that only animals and plants undergo biological processes such as growth, illness, healing, and dying.</td>
</tr>
</tbody>
</table>
### Changes in Living Things

<table>
<thead>
<tr>
<th>Observe and explore growth and changes in humans, animals, and plants and demonstrate an understanding that living things change over time in size and in other capacities as they grow.</th>
<th>Observe and explore growth in humans, animals, and plants and demonstrate an increased understanding that living things change as they grow and go through transformations related to the life cycle (for example, from a caterpillar to butterfly).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recognize that animals and plants require care and begin to associate feeding and watering with the growth of humans, animals, and plants.</td>
<td>Develop a greater understanding of the basic needs of humans, animals, and plants (e.g., food, water, sunshine, shelter).</td>
</tr>
</tbody>
</table>

### Earth Sciences

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
</table>

#### Properties and Characteristics of Earth Materials and Objects

| Investigate characteristics (size, weight, shape, color, texture) of earth materials such as sand, rocks, soil, water, and air. | Demonstrate increased ability to investigate and compare characteristics (size, weight, shape, color, texture) of earth materials such as sand, rocks, soil, water, and air. |

### Changes in the Earth

<p>| Observe and describe natural objects in the sky (sun, moon, stars, clouds) and how they appear to move and change. | Demonstrate an increased ability to observe and describe natural objects in the sky and to notice patterns of movement and apparent changes in the sun and the moon. |</p>
<table>
<thead>
<tr>
<th>Notice and describe changes in weather.</th>
<th>Demonstrate an increased ability to observe, describe, and discuss changes in weather.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Begin to notice the effects of weather and seasonal changes on their own lives and on plants and animals.</td>
<td>Demonstrate an increased ability to notice and describe the effects of weather and seasonal changes on their own lives and on plants and animals.</td>
</tr>
<tr>
<td>Develop awareness of the importance of caring for and respecting the environment and participate in activities related to its care.</td>
<td>Demonstrate an increased awareness and the ability to discuss in simple terms how to care for the environment, and participate in activities related to its care.</td>
</tr>
</tbody>
</table>
## Science

### Scientific Inquiry

#### 1.0 Observation and Investigation

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.1</strong> Demonstrate curiosity and raise simple questions about objects and events in their environment.</td>
<td><strong>1.1</strong> Demonstrate curiosity and an increased ability to raise questions about objects and events in their environment.</td>
</tr>
<tr>
<td><strong>1.2</strong> Observe objects and events in the environment and describe them.</td>
<td><strong>1.2</strong> Observe objects and events in the environment and describe them in greater detail.</td>
</tr>
<tr>
<td><strong>1.3</strong> Begin to identify and use, with adult support, some observation and measurement tools.</td>
<td><strong>1.3</strong> Identify and use a greater variety of observation and measurement tools. May spontaneously use an appropriate tool, though may still need adult support.</td>
</tr>
<tr>
<td><strong>1.4</strong> Compare and contrast objects and events and begin to describe similarities and differences.</td>
<td><strong>1.4</strong> Compare and contrast objects and events and describe similarities and differences in greater detail.</td>
</tr>
<tr>
<td><strong>1.5</strong> Make predictions and check them, with adult support, through concrete experiences.</td>
<td><strong>1.5</strong> Demonstrate an increased ability to make predictions and check them (e.g., may make more complex predictions, offer ways to test predictions, and discuss why predictions were correct or incorrect).</td>
</tr>
<tr>
<td><strong>1.6</strong> Make inferences and form generalizations based on evidence.</td>
<td><strong>1.6</strong> Demonstrate an increased ability to make inferences and form generalizations based on evidence.</td>
</tr>
</tbody>
</table>

1. Other related scientific processes, such as classifying, ordering, and measuring, are addressed in the foundations for mathematics.

---

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### 2.0 Documentation and Communication

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Record observations or findings in various ways, with adult assistance, including pictures, words (dictated to adults), charts, journals, models, and photos.</td>
<td>2.1 Record information more regularly and in greater detail in various ways, with adult assistance, including pictures, words (dictated to adults), charts, journals, models, photos, or by tallying and graphing information.</td>
</tr>
<tr>
<td>2.2 Share findings and explanations, which may be correct or incorrect, with or without adult prompting.</td>
<td>2.2 Share findings and explanations, which may be correct or incorrect, more spontaneously and with greater detail.</td>
</tr>
</tbody>
</table>

### Physical Sciences

#### 1.0 Properties and Characteristics of Nonliving Objects and Materials

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Observe, investigate, and identify the characteristics and physical properties of objects and of solid and nonsolid materials (size, weight, shape, color, texture, and sound).</td>
<td>1.1 Demonstrate increased ability to observe, investigate, and describe in greater detail the characteristics and physical properties of objects and of solid and nonsolid materials (size, weight, shape, color, texture, and sound).</td>
</tr>
</tbody>
</table>

#### 2.0 Changes in Nonliving Objects and Materials

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Demonstrate awareness that objects and materials can change; explore and describe changes in objects and materials (rearrangement of parts; change in color, shape, texture, temperature).</td>
<td>2.1 Demonstrate an increased awareness that objects and materials can change in various ways. Explore and describe in greater detail changes in objects and materials (rearrangement of parts; change in color, shape, texture, form, and temperature).</td>
</tr>
</tbody>
</table>
2.0 Changes in Nonliving Objects and Materials (continued)

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2 Observe and describe the motion of objects (in terms of speed, direction, the ways things move), and explore the effect of own actions (e.g., pushing, pulling, rolling, dropping) on making objects move.</td>
<td>2.2 Demonstrate an increased ability to observe and describe in greater detail the motion of objects (in terms of speed, direction, the ways things move), and to explore the effect of own actions on the motion of objects, including changes in speed and direction.</td>
</tr>
</tbody>
</table>

Life Sciences

1.0 Properties and Characteristics of Living Things

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Identify characteristics of a variety of animals and plants, including appearance (inside and outside) and behavior, and begin to categorize them.</td>
<td>1.1 Identify characteristics of a greater variety of animals and plants and demonstrate an increased ability to categorize them.</td>
</tr>
<tr>
<td>1.2 Begin to indicate knowledge of body parts and processes (e.g., eating, sleeping, breathing, walking) in humans and other animals.</td>
<td>1.2 Indicate greater knowledge of body parts and processes (e.g., eating, sleeping, breathing, walking) in humans and other animals.</td>
</tr>
<tr>
<td>1.3 Identify the habitats of people and familiar animals and plants in the environment and begin to realize that living things have habitats in different environments.</td>
<td>1.3 Recognize that living things have habitats in different environments suited to their unique needs.</td>
</tr>
<tr>
<td>1.4 Indicate knowledge of the difference between animate objects (animals, people) and inanimate objects. For example, expect animate objects to initiate movement and to have different insides than inanimate objects.</td>
<td>1.4 Indicate knowledge of the difference between animate and inanimate objects, providing greater detail, and recognize that only animals and plants undergo biological processes such as growth, illness, healing, and dying.</td>
</tr>
</tbody>
</table>

2. The knowledge of body parts is also addressed in the California Preschool Foundations (Volume 2) for health. In science, it also includes the knowledge of body processes. Knowledge of body parts is extended to those of humans and other animals.

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## 2.0 Changes in Living Things

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Observe and explore growth and changes in humans, animals, and plants and demonstrate an understanding that living things change over time in size and in other capacities as they grow.</td>
<td>2.1 Observe and explore growth in humans, animals, and plants and demonstrate an increased understanding that living things change as they grow and go through transformations related to the life cycle (for example, from a caterpillar to butterfly).</td>
</tr>
<tr>
<td>2.2 Recognize that animals and plants require care and begin to associate feeding and watering with the growth of humans, animals, and plants.</td>
<td>2.2 Develop a greater understanding of the basic needs of humans, animals, and plants (e.g., food, water, sunshine, shelter).</td>
</tr>
</tbody>
</table>
# Earth Sciences

## 1.0 Properties and Characteristics of Earth Materials and Objects

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Investigate characteristics (size, weight, shape, color, texture) of earth materials such as sand, rocks, soil, water, and air.</td>
<td>1.1 Demonstrate increased ability to investigate and compare characteristics (size, weight, shape, color, texture) of earth materials such as sand, rocks, soil, water, and air.</td>
</tr>
</tbody>
</table>

## 2.0 Changes in the Earth

| 2.1 Observe and describe natural objects in the sky (sun, moon, stars, clouds) and how they appear to move and change. | 2.1 Demonstrate an increased ability to observe and describe natural objects in the sky and to notice patterns of movement and apparent changes in the sun and the moon. |
| 2.2 Notice and describe changes in weather. | 2.2 Demonstrate an increased ability to observe, describe, and discuss changes in weather. |
| 2.3 Begin to notice the effects of weather and seasonal changes on their own lives and on plants and animals. | 2.3 Demonstrate an increased ability to notice and describe the effects of weather and seasonal changes on their own lives and on plants and animals. |
| 2.4 Develop awareness of the importance of caring for and respecting the environment and participate in activities related to its care. | 2.4 Demonstrate an increased awareness and the ability to discuss in simple terms how to care for the environment, and participate in activities related to its care. |

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Science

Scientific Inquiry
(skills and language related to science)
1.0 Observation and Investigation
2.0 Documentation and Communication

Physical Sciences
1.0 Properties and Characteristics of Nonliving Objects and Materials
2.0 Changes in Nonliving Objects and Materials
Science

Life Sciences
1.0 Properties and Characteristics of Living Things
2.0 Changes in Living Things

Earth Sciences
1.0 Properties and Characteristics of Earth Materials and Objects
2.0 Changes in the Earth
Science

Completing the puzzle:
- Assemble the pieces to show the organizational structure of the domain
  - Identify the 4 strands
  - Place appropriate substrands and foundations under each strand
  - Consider whether each foundation describes what children know or can do at around 48 or 60 months of age

What pattern do you notice between the foundations for the two age groups?
- How would you decide if a child has acquired the skills and knowledge for the foundation at the 48-month age level or the 60-month age level? What information about the child would you need?
Science

- What stands out for you?
- Which specific foundations were easier to place? Which ones were more challenging? Why?
- What are some examples you have seen of these foundations?
- Which strand is the least familiar to you? How could you learn more about that strand?
Focus Statement

Students become familiar with the concepts and key vocabulary of the science foundations by reviewing new or unfamiliar vocabulary and demonstrating examples of the foundations.

Curriculum Alignment Project (CAP) Student Learning Outcomes

The Curriculum Alignment Project's (CAP) lower division eight courses and student learning outcomes are mapped onto each instructional guide learning experience. See Appendix A for the specific student learning outcomes, objectives, and examples of course content and topics for the courses listed below.

- Introduction to Curriculum
- Principle and Practices of Teaching Young Children
- Teaching in a Diverse Society
- Practicum-Field Experience

Instructional Methodologies

- Class discussion
- Class presentation
- Development of a resource tool
- Jigsaw reading
- Notetaking outline or guide
- Pairs or small groups
- Personal Reflection
- Reflective discussion
- Role playing
- Short paper or report
California Early Childhood Educator Competency Areas to Consider

The Faculty Initiative Project will undertake a comprehensive process in the future to map the content of the instructional guides to the California Department of Education, Early Education and Support Division’s *California Early Childhood Educator Competencies*. The “Competency Areas to Consider” below are listed in this instructional guide as a preliminary exploration of how particular competency areas might be addressed through these learning experiences.

- Culture, Diversity, and Equity
- Dual-Language Development
- Special Needs and Inclusion
- Learning Environments and Curriculum
- Professionalism
Before You Start

From the day they are born, children are engaging in science—“...finding out how the world works (California Preschool Learning Foundations, Volume 3, p. 48).” Their natural curiosity leads them to explore and experiment, using their senses and developing physical, social, language, and cognitive skills. Because research has shown that very young children are ready and able to learn many scientific concepts and practice some of the basic skills of scientific inquiry, there has been increasing interest in and recognition of the importance of science in the preschool curriculum. This emphasis not only helps prepare children for studying science in school but also nurtures the joy that children experience in discovery and learning.

In this learning experience, students will become more familiar with the content of the science foundations by examining the vocabulary presented in this domain and demonstrating examples of the foundations. Language is an essential component in developing scientific inquiry skills, and children develop the language skills and learn the specific vocabulary that helps them “...describe their observations, plan explorations, and communicate findings, explanations, and ideas to others (California Preschool Learning Foundations, Volume 3, p. 53).” Similarly, students need to be familiar with this vocabulary so that they can understand and recognize how a child is demonstrating a knowledge or skill described in a foundation.

Students will also explore the content of the foundations by role-playing behaviors that they might see in preschoolers who are demonstrating the competencies addressed in a specific foundation. The purpose of role playing is to heighten students' awareness of the many different ways children may demonstrate those competencies.

Two options for doing the role playing are suggested. In the first, students choose one or more foundations to demonstrate and develop their own examples. In the second option, students draw an example from one of the foundations—similar to a game of charades. If the second option is chosen, instructors will need to select examples and prepare strips of paper with the examples for students to choose from.

In the “Deeper Understanding” section, students are asked to identify considerations when working with children with disabilities or who are dual language learners. If students do not have much experience with children with disabilities, two resources listed in Appendix D of the California Preschool Curriculum Framework, Volume 1 are suggested: Adapting Early Childhood Curricula for Children with Special Needs
(Seventh edition) by Ruth E., Cook, M. Diane Klein, and Annette Tessier and Inclusive Early Childhood Education: Development, Resources, and Practice (Fifth edition) by Penny Low Deiner.


The California Department of Education publication Preschool English Learners: Principles and Practices to Promote Language, Literacy, and Learning (Second edition) may be useful for students in learning more about working with children who are dual language learners.

There are four strands in the science domain, and a summary table of the strands, substrands, and number of foundations for each substrand is on page 59 of the California Preschool Learning Foundations, Volume 3. The table is also presented here for quick reference:

<table>
<thead>
<tr>
<th>Strand</th>
<th>Substrand</th>
<th>Foundation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scientific Inquiry</td>
<td>1.0 Observation and Investigation</td>
<td>1.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.2</td>
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<tr>
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<td></td>
<td>2.0 Documentation and Communication</td>
<td>2.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.2</td>
</tr>
<tr>
<td>Physical Sciences</td>
<td>1.0 Properties and Characteristics of Nonliving Objects and Materials</td>
<td>1.1</td>
</tr>
<tr>
<td></td>
<td>2.0 Changes in Nonliving Objects and Materials</td>
<td>2.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.2</td>
</tr>
</tbody>
</table>
### Strand | Substrand | Foundation
--- | --- | ---
**Life Sciences** | 1.0 Properties and Characteristics of Living Things | 1.1
| | | 1.2
| | | 1.3
| | | 1.4
| 2.0 Changes in Living Things | 2.1
| | | 2.2

**Earth Sciences** | 1.0 Properties and Characteristics of Earth Materials and Objects | 1.1
| 2.0 Changes in the Earth | 2.1
| | | 2.2
| | | 2.3
| | | 2.4

A glossary for the science domain is on pages 95–96 of the *California Preschool Learning Foundations, Volume 3*, and the glossary terms are in bold throughout the science domain chapter.

**Getting it started**
Begin by asking students to read pages 48–60 and pages 95–96 of the *California Preschool Learning Foundations, Volume 3*. Instructors may wish to make this assigned out-of-class reading so that students are prepared to discuss the material in class. An option is to do a jigsaw reading during the class session and assign different pages to one or more students. The students could prepare one-page note sheets that outline the main points and key vocabulary for their assigned sections.

Conclude the reading with a short class discussion that could address these questions:

- What is critical information that teachers should know about the science foundations?
- What are the key vocabulary terms in this domain that teachers should know?
Keeping it going
Ask students to form teams of two or three depending on the class size. Students will be role-playing, so the number of teams may be determined by how much time is allotted for the role playing and follow-up discussion.

Explain to students that they are to choose one of the foundations from the Physical Sciences, Life Sciences, or Earth Sciences strands and develop an example. They can review the examples provided in the *California Learning Foundations, Volume 3* for ideas but should come up with their own example. They then develop a short role-playing presentation of their example that shows how a child might demonstrate the competencies described in the foundation. Students may gather or make props to use in their presentation.

Putting it together
Each team does its role playing without naming the strand, substrand, or foundation. The other students are asked to identify which foundation from one of the three content strands was presented and also any of the foundations from the Scientific Inquiry strand. If the team feels that the students have not identified the correct content strand foundation, they can repeat or expand on their role playing to give the audience a second chance.

Taking it further
After all the presentations have been done, ask the students to discuss these questions:

- What made it easy or difficult to decide which foundation was being portrayed?
- What similar challenges might occur when observing children to determine their progress in learning the skills or knowledge described in the foundations?
- What might teachers need to know or plan to do to address those challenges?

Another approach/way
Instead of self-selecting a foundation and creating their own examples, the teams could draw one of the examples from the foundations. Students would then have one minute to prepare—similar to charades. However, students can communicate using any language they choose and incorporate props. Other students could also work in their teams to identify the foundation being role-played.
Conclude the class with a group discussion or by asking students to individually respond to these questions:

- What images or words from any of the role playing are you still thinking about?
- Which foundations did you find it easiest to develop an example for? To identify? Which were the most difficult to develop? To identify?
- What additional considerations should teachers be aware of when observing children to see how they may be demonstrating the knowledge and skills described in the science foundations?
- What will you take from this learning experience to your work on the science foundations with young children?

Have students review the sections on universal design for learning and children whose home language is not English (California Preschool Learning Foundations, Volume 3, pp. xiv–xv, 51–52, and 53–54). Ask them to discuss how children with different disabilities or who are learning English might demonstrate competence in a foundation.

Then ask the students to revise their role playing to show how children who are dual language learners or have a physical, sensory, cognitive, or language disability could demonstrate a knowledge or skill addressed in the foundation. If students have not had much experience working with children with disabilities or who are dual language learners, you may want to provide resources for students.

These two resources are listed in Appendix D of the California Preschool Curriculum Framework, Volume 1:


Note: The eighth edition of *Adapting Early Childhood Curricula for Children with Special Needs* by Ruth E. Cook, M. Diane Klein, and Deborah Chen was published in 2011 and the sixth edition of *Inclusive Early Childhood Education: Development, Resources, and Practice* by Penny Low Deiner was published in 2013.
Students could role-play their revised examples or write summaries of the revisions and key considerations when applying the foundations to children who are dual language learners or have disabilities. These revisions could also be shared with other students as a resource.

**Online Options**

If students write the examples, these could be posted online. After instructor review, students could save all the examples as a future resource.
Science

Scientific Inquiry
(skills and language related to science)
1.0  Observation and Investigation
2.0  Documentation and Communication

Physical Sciences
1.0  Properties and Characteristics of Nonliving Objects and Materials
2.0  Changes in Nonliving Objects and Materials
Science

Life Sciences
1.0 Properties and Characteristics of Living Things
2.0 Changes in Living Things

Earth Sciences
1.0 Properties and Characteristics of Earth Materials and Objects
2.0 Changes in the Earth

• What is critical information that teachers should know about the science foundations?

• What are the key vocabulary terms in this domain that teachers should know?
Science

• What made it easy or difficult to decide which foundation was being portrayed?
• What similar challenges might occur when observing children to determine their progress in learning the skills or knowledge described in the foundations?
• What might teachers need to know or plan to do to address those challenges?

Science

• What images or words from the role playing are you still thinking about?
• Which foundations did you find it easiest to develop an example for? To identify? Which were the most difficult to develop? To identify?
Science

- What additional considerations should teachers be aware of when observing children to see how they may be demonstrating the knowledge and skills described in the science foundations?
- What will you take from this learning experience to your work on the science foundations with young children?

Science

“Science is for all students, regardless of age, sex, cultural ethnic background, disabilities, aspirations, or interest and motivation in science.”
(National Committee on Science Education Standards and Assessment and National Research Council 1996, 20)
Science

- Children approach scientific inquiry and explanation having various linguistic, social, and cognitive skills.
- Cultural background may shape the development of some scientific concepts.
- Experiences with the natural world affect children’s understanding of science concepts.

Science

- Many children in California are learning about scientific concepts and skills while acquiring English.
- Some children may communicate their science knowledge and skills using nonverbal means of communication.
Science

Principles of Universal Design for Learning

1. Multiple means of representation
2. Multiple means of expression
3. Multiple means of engagement

Science: Learning Experience 4

Science

Principles of Universal Design for Learning

1. Multiple means of representation
   ◦ Providing information in a variety of ways so the learning needs of all of the children are met (California Preschool Learning Foundations, Volume 3, pg. xiv).
Science

Principles of Universal Design for Learning

2. Multiple means of expression
   ◦ Allowing children to use alternative methods to demonstrate what they know or what they are feeling (California Preschool Learning Foundations, Volume 3, pg. xiv).

Science

Principles of Universal Design for Learning

3. Multiple means of engagement
   ◦ Providing choices for activities in the setting or program that facilitate learning by building on children’s interests (California Preschool Learning Foundations, Volume 3, pg. xiv).
Science

Resources:


• *Inclusive Early Childhood Education: Development, Resources, and Practice* (Sixth edition) by Penny Low Deiner.
Science:
Linking the Preschool Learning Foundations with the California Kindergarten Science Content Standards

Focus Statement

Students become familiar with the California Department of Education’s *Science Content Standards for California Public Schools, Kindergarten Through Grade Twelve* (California Department of Education, 2000) and explore their relationship to the science foundations in the *California Preschool Learning Foundations, Volume 3*.

Curriculum Alignment Project (CAP) Student Learning Outcomes

The Curriculum Alignment Project’s (CAP) lower division eight courses and student learning outcomes are mapped onto each instructional guide learning experience. See Appendix A for the specific student learning outcomes, objectives, and examples of course content and topics for the courses listed below.

- Child Growth and Development
- Introduction to Curriculum
- Principles and Practices of Teaching Young Children
- Practicum-Field Experience

Instructional Methodologies

- Class discussion
- Development of resource tool
- Pairs or small groups
- Reflective discussion

California Early Childhood Educator Competency Areas to Consider

The Faculty Initiative Project will undertake a comprehensive process in the future to map the content of the instructional guides to the California Department of Education, Early Education and Support Division’s *California Early Childhood Educator Competencies*. The “Competency Areas to Consider” below are listed in this instructional guide as a preliminary exploration of how particular competency areas might be addressed through these learning experiences.
• Child Development and Learning
• Learning Environments and Curriculum
• Leadership in Early Childhood Education
• Professionalism
• Administration and Supervision
Before You Start

As stated on page 50 of the *California Learning Foundations, Volume 3*, the preschool learning foundations for the science domain are aligned with the *Science Content Standards for California Public Schools* (California Department of Education, 2000) and the *National Science Education Content Standards* (National Committee on Science Education Standards and Assessment and National Research Council 1996). In this learning experience, students can explore one or both of these documents and the relationship to the preschool science foundations. It will be important to recognize and support students in understanding that one is a key California early learning resource and the other is a key national early learning resource.

Appendix B of the *California Preschool Learning Foundations, Volume 3* publication is “An Overview of the Alignment of the California Preschool Learning Foundations with Key Early Education Resources.” This is a summary of an alignment document published by the California Department of Education that shows the alignment of all domains of the foundations to three other key California early learning resources, including the kindergarten content standards, and to the *Head Start Early Learning and Development Framework*. Table 12 on pages 159–160 shows the alignment between the science foundations at the strand and substrand levels and the kindergarten content standards, as well as to the *California Infant/Toddler Development Foundations*.

There is a learning experience in this instructional guide, titled “Exploring the Overview of the Alignment of the California Preschool Learning Foundations with Key Early Education Resources,” that will support students in exploring all the alignment materials in Appendix B of the *California Preschool Learning Foundations, Volume 3* and guide them through the alignment of California foundations in all domains to the other three resources. Therefore, please keep in mind that this learning experience described in the “Active Learning” below relates only to the science foundations and how they are aligned to a specific California resource, *Science Content Standards for California Public Schools* (California Department of Education, 2000) and a specific national resource, the *National Science Education Content Standards* (National Committee on Science Education Standards and Assessment and National Research Council 1996).

Students will need access to the California science content standards, and instructors may choose to provide copies of the pages with the kindergarten standards or ask students to download the full document from the California Department of Education’s Web site ([http://www.cde.ca.gov/be/st/ss/index.asp](http://www.cde.ca.gov/be/st/ss/index.asp)). Please note that at the time the
California Preschool Learning Foundations, Volume 3 and this instructional guide were developed, the science content standards adopted by the California Board of Education in 1998 and published by the California Department of Education in 2000 were current. This version is listed under “Previous Content Standards” on the Web page.

If students are also to work with the National Science Education Content Standards, the document can be read online at http://www.nap.edu/openbook.php?record_id=4962&page=R1 or a PDF version can be downloaded at https://download.nap.edu/login.php?record_id=4962&page=/download.php?record_id=4962. Please note that one must register for a free account with The National Academies Press in order to download the document. The registration page is http://www.nap.edu/content/help/mynaphelp.html.

Two handouts, Handout 1 and Handout 2, which students can use in comparing the preschool science learning foundations with the California kindergarten science content standards and the National Science Education Content Standards, are included with this learning experience. Electronic versions of these handouts will be available when this instructional guide is online at www.wested.org/facultyinitiative.

Students are to review and compare two sets of materials in the initial part of this learning experience: the kindergarten content standards of the Science Content Standards for California Public Schools (California Department of Education, 2000) and the science foundations in the California Preschool Learning Foundations, Volume 3.

A summary of the science foundations can be found in Appendix B of this instructional guide as well as in the handouts of these science learning experiences in this instructional guide: Learning Experience 3, “Piecing Together the Science Domain Content Puzzle,” and Learning Experience 4, “Exploring the Content and Vocabulary of the Science Domain.”

The following outline is a summary of the California kindergarten science content standards as adopted by the California State Board of Education in 1998:

Physical Sciences

1. Properties of materials can be observed, measured, and predicted. As a basis for understanding this concept:
   a. Students know objects can be described in terms of the materials they are made of (e.g., clay, cloth, paper) and their physical properties (e.g., color, size, shape, weight, texture, flexibility, attraction to magnets, floating, sinking).
b. Students know water can be a liquid or a solid and can be made to change back and forth from one form to the other.

c. Students know water left in an open container evaporates (goes into the air) but water in a closed container does not.

Life Sciences
2. Different types of plants and animals inhabit the earth. As a basis for understanding this concept:
   a. Students know how to observe and describe similarities and differences in the appearance and behavior of plants and animals (e.g., seed-bearing plants, birds, fish, insects).
   b. Students know stories sometimes give plants and animals attributes they do not really have.
   c. Students know how to identify major structures of common plants and animals (e.g., stems, leaves, roots, arms, wings, legs).

Earth Sciences
3. Earth is composed of land, air, and water. As a basis for understanding this concept:
   a. Students know characteristics of mountains, rivers, oceans, valleys, deserts, and local landforms.
   b. Students know changes in weather occur from day to day and across seasons, affecting Earth and its inhabitants.
   c. Students know how to identify resources from Earth that are used in everyday life and understand that many resources can be conserved.

Investigation and Experimentation
4. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:
   a. Observe common objects by using the five senses.
   b. Describe the properties of common objects.
   c. Describe the relative position of objects by using one reference (e.g., above or below).
   d. Compare and sort common objects by one physical attribute (e.g., color, shape, texture, size, weight).
   e. Communicate observations orally and through drawings.
**Getting it started**

This learning experience begins with the students reviewing the California preschool science foundations and the California kindergarten content standards. If this is the students' initial exposure to the science foundations, it may be helpful to spend some time discussing some of the examples for each foundation. Reviewing the glossary on pages 95–96 of the *California Preschool Learning Foundations, Volume 3* may also assist students in understanding the foundations.

Ask students to note the similarities and differences among the substrands and foundations of the three content strands—Physical Sciences, Earth Sciences, and Life Sciences. Discuss what each of the substrands and foundations for the Scientific Inquiry strand could look like for preschoolers, again drawing from the examples as necessary.

**Keeping it going**

Next introduce Handout 1 or ask students to create a similar grid. Working individually or in small groups, students are to list any foundations that they believe are related to one or more of the kindergarten science content standards. For example, foundation 1.2 of the Scientific Inquiry strand, Observation and Investigation substrand is “Observe objects and events in the environment and describe them.” This foundation could be listed under three elements of the Investigation and Experimentation kindergarten standard: “Observe common objects by using the five senses,” “Describe the properties of common objects,” and “Describe the relative position of objects by using one reference (e.g., above or below).”

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**Investigation and Experimentation**

| 4. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will: |
|---|---|---|
| a. Observe common objects by using the five senses. | b. Describe the properties of common objects. | c. Describe the relative position of objects by using one reference (e.g., above or below). |
**Strand(s), substrand(s), & foundation(s):**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Substrand - 1.0</td>
<td>Substrand - 1.0</td>
<td>Substrand - 1.0</td>
</tr>
<tr>
<td>Observation and Investigation Foundation – 1.2, 48 and 60 months of age</td>
<td>Observation and Investigation Foundation – 1.2, 48 and 60 months of age</td>
<td>Observation and Investigation Foundation – 1.2, 48 and 60 months of age</td>
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</table>

**Putting it together**

The next step is a comparison of the students’ completed grids. Encourage students to look for similarities and differences and to discuss why they did or did not link certain foundations to specific content standards when there are differences. If students worked individually on their grids, instructors may want them to first compare their grids with a few other students before doing a full class discussion.

If students worked in pairs or small groups, instructors may wish to start with a full class discussion. Depending on the size of the class, each pair or group could take a turn sharing the foundations they identified for each standard until all the standards have been compared. Again encourage discussion about any differences in the students’ grids.

**Taking it further**

Remind students that the preschool science foundations were also organized to align with the *National Science Education Content Standards* (National Committee on Science Education Standards and Assessment and National Research Council 1996). Review the standards with students, noting that these standards are designated for the grade level groupings K–4, 5–8, and 9–12.

There are eight categories of content standards in the *National Science Education Content Standards* (National Committee on Science Education Standards and Assessment and National Research Council 1996).

The standards for grade levels K–4 are summarized in the following outline:
Unifying Concepts and Processes (Note that this standard is for grades K-12)
- Systems, order, and organization
- Evidence, models, and explanation
- Change, constancy, and measurement
- Evolution and equilibrium
- Form and function

Science as Inquiry Standards
- Abilities necessary to do scientific inquiry
- Understanding about scientific inquiry

Physical Science Standards
- Properties of objects and materials
- Position and motion of objects
- Light, heat, electricity, and magnetism

Life Science Standards
- Characteristics of organisms
- Life cycles of organisms
- Organisms and environments

Earth and Space Science Standards
- Properties of earth materials
- Objects in the sky
- Changes in earth and sky

Science and Technology Standards
- Abilities to distinguish between natural objects and objects made by humans
- Abilities of technological design
- Understandings about science and technology

Science in Personal and Social Perspectives
- Personal health
- Characteristics and changes in populations
- Types of resources
- Changes in environments
- Science and technology in local challenges

History and Nature of Science Standards
- Science as a human endeavor

Because the standards cover several grade levels, it is important for students to recognize how the standard applies to the youngest
or kindergarten-age children. Reading through the sections titled “Fundamental abilities and concepts that underlie this standard” for each standard may help students identify behaviors that would be typical of kindergartners.

After the review, instructors could ask the students to either (1) respond to questions or (2) complete a comparison grid.

1. Students discuss or write responses to the following two questions:

   Question 1. What are some of the similarities and differences between these national standards and the California kindergarten science standards?

   The following points are examples of some of the similarities and differences and are provided here as a reference for instructors.

   • The grade level designations are different. The California standards are separate for each grade whereas the national ones are for grade level groupings.

   • The number of categories is different; there are eight national standards and four California ones.

   • The titles for some of the standards are the same while others are different.

   • The national standards have a fair amount of detail in classroom vignettes and the fundamental concepts and principles underlying each standard that helps to explain the standards.

   Question 2. How has this review of the National Science Education Content Standards added to your understanding of the preschool science foundations, children’s development of skills and knowledge in the science domain, and the role of

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**Online Options**

If the class has online-discussion capability, students could review the National Science Education Content Standards individually and then the instructor could lead a discussion of the two questions.
science in the preschool curriculum?

2. Students complete a grid comparing these national standards with the California preschool science foundations. Instructors may choose to give students Handout 2 or ask them to develop their own grids. Students could work individually or in pairs or small groups and then compare and discuss their completed grids.

**Another approach/way**

Instead of having students complete all sections of the grid comparing California’s preschool science foundations and the kindergarten science content standards, instructors may choose to divide the class into small groups and assign each group a certain number of the kindergarten standards and subitems. Then after each group presents its findings, the rest of the class could ask questions and/or suggest additional foundations.

This session can be concluded with a class discussion of the following questions:

- What stood out for you from the comparison of the *Science Content Standards for California Public Schools, Kindergarten Through Grade Twelve* and the science foundations in the *California Preschool Learning Foundations, Volume 3*?
- What were some of the main similarities and differences between the standards and the foundations? What might be some reasons for these similarities and differences?
- Why do you think it’s important for preschool teachers to be knowledgeable about the kindergarten science content standards?
- What are key ideas from this learning experience that you’ll keep in mind in your work as a preschool teacher?

**Reflection**

**Deeper Understanding**

All 50 states and the District of Columbia have developed early learning guidelines. These guidelines are defined by the Early Learning & Development Standards Web site ([http://www.earlylearningguidelines-standards.org/content.php? s=what_are_elgs](http://www.earlylearningguidelines-standards.org/content.php? s=what_are_elgs)) as “documents
states have published to describe what children should know and be able to do before they start kindergarten. Some states call their documents ‘early learning standards’ or other titles such as ‘foundations’ or ‘building blocks.”

Depending on the number of students in the class, instructors may choose to ask students to each review the guidelines related to science from one or more states. They could then develop a resource sheet that might include the following information*:

- State and what the guidelines are called
- Year the guidelines were developed or adopted
- Ages of children addressed
- Purpose and intended use(s) of the guidelines
- Inclusion of guiding principles
- Domains and subjects included
- Summary of the guidelines for science
- Comparison with the preschool science foundations from the California Preschool Learning Foundations, Volume 3
- Information that helps you better understand the California preschool science foundations

Students can share the resource sheets with the other students, so that students will have a compilation of state early learning science guidelines as a reference.

### Physical Sciences

1. Properties of materials can be observed, measured, and predicted. As a basis for understanding this concept:

| a. Students know objects can be described in terms of the materials they are made of (e.g., clay, cloth, paper) and their physical properties (e.g., color, size, shape, weight, texture, flexibility, attraction to magnets, floating, sinking). |
| b. Students know water can be a liquid or a solid and can be made to change back and forth from one form to the other. |
| c. Students know water left in an open container evaporates (goes into the air) but water in a closed container does not. |

**Strand(s), substrand(s), & foundation(s):**

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### Life Sciences

2. Different types of plants and animals inhabit the earth. As a basis for understanding this concept:

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Earth Sciences
3. Earth is composed of land, air, and water. As a basis for understanding this concept:

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### Investigation and Experimentation

4. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

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<td>d. Compare and sort common objects by one physical attribute (e.g., color, shape, texture, size, weight).</td>
<td>e. Communicate observations orally and through drawings.</td>
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</tbody>
</table>
# Linking the National Science Education Content Standards and the California Preschool Learning Foundations, Volume 3

Instructions: After reviewing the eight standards from the *National Science Education Content Standards*, identify some foundations from the science domain that relate to each standard.

<table>
<thead>
<tr>
<th>Unifying Concepts and Processes</th>
<th>Science as Inquiry Standards</th>
<th>Physical Science Standards</th>
<th>Life Science Standards</th>
</tr>
</thead>
<tbody>
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<table>
<thead>
<tr>
<th>Earth and Space Science Standards</th>
<th>Science and Technology Standards</th>
<th>Science in Personal and Social Perspectives</th>
<th>History and Nature of Science Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Properties of earth materials</td>
<td>• Abilities to distinguish between natural objects and objects made by humans</td>
<td>• Personal health</td>
<td>• Science as a human endeavor</td>
</tr>
<tr>
<td>• Objects in the sky</td>
<td>• Abilities of technological design</td>
<td>• Characteristics and changes in populations</td>
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<td>• Understandings about science and technology</td>
<td>• Types of resources</td>
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</tbody>
</table>
Science

The preschool learning foundations for the science domain are aligned with:

- **Science Content Standards for California Public Schools** (California Department of Education, 2000).
- **National Science Education Content Standards** (National Committee on Science Education Standards and Assessment and National Research Council 1996).
Science

http://www.cde.ca.gov/be/st/ss/index.asp

Science

http://www.nap.edu/openbook.php?record_id=4962&page=R1
Summary: California Kindergarten Science Content Standards

Physical Sciences

1. Properties of materials can be observed, measured, and predicted. As a basis for understanding this concept:
   a) Students know objects can be described in terms of the materials they are made of (e.g., clay, cloth, paper) and their physical properties (e.g., color, size, shape, weight, texture, flexibility, attraction to magnets, floating, sinking).

Physical Sciences (continued)

b) Students know stories sometimes give plants and animals attributes they do not really have.

c) Students know how to identify major structures of common plants and animals (e.g. stems, leaves, roots, arms, wings, legs).
Summary: California Kindergarten Science Content Standards

Life Sciences

2. Different types of plants and animals inhabit the earth. As a basis for understanding this concept:
   a) Students know how to observe and describe similarities and differences in the appearance and behavior of plants and animals (e.g., seed-bearing plants, birds, fish, insects).

   b) Students know stories sometimes give plants and animals attributes they do not really have.

   c) Students know how to identify major structures of common plants and animals (e.g., stems, leaves, roots, arms, wings, legs).
Summary: California Kindergarten Science Content Standards

Earth Sciences
3. Earth is composed of land, air, and water. As a basis for understanding this concept:
   a) Students know characteristics of mountains, rivers, oceans, valleys, deserts, and local landforms.

Earth Sciences (continued)
b) Students know changes in weather occur from day to day and across seasons, affecting Earth and its inhabitants.
c) Students know how to identify resources from Earth that are used in everyday life and understand that many resources can be conserved.
Summary: California Kindergarten Science Content Standards

Investigation and Experimentation

4. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations.

4. Students will:
   a) Observe common objects by using five senses.
   b) Describe the properties of common objects.
   c) Describe the relative position of objects by using one reference (e.g., above or below).
Summary: California Kindergarten Science Content Standards

**Investigation and Experimentation**

d) Compare and sort common objects by one physical attribute (e.g., color, shape, texture, size, weight).

e) Communicate observations orally and through drawings.

Preschool Science Foundations

**Scientific Inquiry**

(skills and language related to science)

1.0 Observation and Investigation

2.0 Documentation and Communication

**Physical Sciences**

1.0 Properties and Characteristics of Nonliving Objects and Materials

2.0 Changes in Nonliving Objects and Materials
Preschool Science Foundations

Life Sciences
1.0 Properties and Characteristics of Living Things
2.0 Changes in Living Things

Earth Sciences
1.0 Properties and Characteristics of Earth Materials and Objects
2.0 Changes in the Earth

Science

Linking the Science Content Standards for California Public Schools, Kindergarten Through Grade Twelve, and the California Preschool Learning Foundations, Volume 3

Physical Sciences
1. Properties of materials can be observed, measured, and predicted. As a basis for understanding this concept:
   a. Students know objects can be described in terms of the materials they are made of (e.g., oily, cloth, paper) and their physical properties (e.g., color, size, shape, weight, texture, flexibility, attraction to magnets, floating, sinking).
   b. Students know water can be a liquid or a solid and can be made to change back and forth from one form to the other.
   c. Students know water left in an open container evaporates (goes into the air) but water in a closed container does not.

Strand(s), substrand(s), & foundation(s):
Summary: National Science Education Content Standards

**Unifying Concepts and Processes**

- Systems, order, and organization
- Evidence, models, and explanation
- Change, constancy, and measurement
- Evolution and equilibrium
- Form and function
Summary: National Science Education Content Standards

Science as Inquiry Standards
- Abilities necessary to do scientific inquiry
- Understanding about scientific inquiry

Physical Science Standards
- Properties of objects and materials
- Position and motion of objects
- Light, heat, electricity, and magnetism

Life Science Standards
- Characteristics of organisms
- Life cycles of organisms
- Organisms and environments

Earth and Space Science Standards
- Properties of earth materials
- Objects in the sky
- Changes in earth and sky
Summary: National Science Education Content Standards

**Science and Technology Standards**
- Abilities to distinguish between natural objects and objects made by humans
- Abilities of technological design
- Understandings about science and technology

**Science in Personal and Social Perspectives**
- Personal health
- Characteristics and changes in populations
- Types of resources
- Changes in environments
- Science and technology in local challenges
Summary: National Science Education Content Standards

History and Nature of Science Standards

• Science as a human endeavor

Science

• What are some of the similarities and differences between these national standards and the California kindergarten science standards?
Science

- How has this review of the National Science Education Content Standards added to your understanding of the preschool science foundations, children’s development of skills and knowledge in the science domain, and the role of science in the preschool curriculum?

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Science

Linking the National Science Education Content Standards and the California Preschool Learning Foundations, Volume 3

Instructions: After reviewing the eight standards from the National Science Education Content Standards, identify some foundations from the science domain that relate to each standard.

<table>
<thead>
<tr>
<th>Unifying Concepts and Processes</th>
<th>Science as Inquiry Standards</th>
<th>Physical Science Standards</th>
<th>Life Science Standards</th>
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</tbody>
</table>

Strand(s), substrand(s), & foundation(s):
Science

- What stood out for you from the comparison of the *Science Content Standards for California Public Schools* and the science foundations in the *California Preschool Learning Foundations, Volume 3*?
- What were some of the main similarities and differences? What might be some reasons for these similarities and differences?

Science

- Why do you think it’s important for preschool teachers to be knowledgeable about the kindergarten science content standards?
- What are key ideas from this learning experience that you’ll keep in mind in your work as a preschool teacher?
Science

- All 50 states and the District of Columbia have early learning guidelines.
- Guidelines can be found on the Early Learning & Development Standards Website:
  (http://www.earlylearningguidelines-standards.org/content.php?s=what_are_elgs?)

Science: Learning Experience 5

Science

**Develop a resource sheet:**
- State and what the guidelines are called
- Year the guidelines were developed or adopted
- Ages of children addressed
- Purpose and intended use(s)
- Inclusion of guiding principles
- Domains and subjects included
Science

**Develop a resource sheet:**

- Summary of the guidelines for science
- Comparison with the preschool science foundations from the *California Preschool Learning Foundations, Volume 3*
- Information that helps you better understand the California preschool science foundations
Focus Statement

Students become familiar with the rationale and research base for the preschool science foundations by reviewing the introductory and Bibliographic Notes sections of the science domain and preparing a poster.

Curriculum Alignment Project (CAP) Student Learning Outcomes

The Curriculum Alignment Project's (CAP) lower division eight courses and student learning outcomes are mapped onto each instructional guide learning experience. See Appendix A for the specific student learning outcomes, objectives, and examples of course content and topics for the courses listed below.

- Child Growth and Development
- Introduction to Curriculum
- Principle and Practices of Teaching Young Children
- Practicum-Field Experience

Instructional Methodologies

- Class discussion
- Class presentation
- Creation of a visual representation
- Development of resource tool
- Jigsaw reading
- Notetaking outline or guide
- Pairs or small groups
- Peer review and feedback
- Personal reflection
- Reflective discussion
- Short paper or report
California Early Childhood Educator Competency Areas to Consider

The Faculty Initiative Project will undertake a comprehensive process in the future to map the content of the instructional guides to the California Department of Education, Early Education and Support Division’s *California Early Childhood Educator Competencies*. The “Competency Areas to Consider” below are listed in this instructional guide as a preliminary exploration of how particular competency areas might be addressed through these learning experiences.

- Child Development and Learning
- Learning Environments and Curriculum
- Leadership in Early Childhood Education
- Professionalism
- Administration and Supervision
Science: 
Exploring the Research Base for the Science Domain

Before You Start

Children’s predisposition to learn certain kinds of knowledge, and to think abstractly about concepts from biology and physics, support the early learning of science and pave the way for competence in early schooling. Children’s natural inclination and ability to observe and try to understand their world, to develop conceptual knowledge, and to reason about many scientific concepts make science an excellent fit for the preschool environment. As such, there is growing recognition at the national level that science is appropriate and important for preschool children (National Research Council 1999, 2000, 2007) (California Preschool Learning Foundations, Volume 3, p. 48).

As students explore the foundations, acquiring a familiarity with some of the research base can help students better understand the foundations and the differences between the foundations for 48 months and for 60 months. The material in the Bibliographic Notes of the California Preschool Learning Foundations, Volume 3 provides references to the research literature as well as additional information about children’s developmental knowledge and skills for the four strands: Scientific Inquiry, Physical Sciences, Life Sciences, and Earth Sciences.

In this learning experience, students will select one of the strands, review the research citations in the Bibliographic Notes for that strand, and prepare a poster that presents a summary of that information as it relates to the foundations in the strand. It is suggested that time between class sessions be provided for students to work in teams on their posters.

Instructors may choose to develop specific guidelines for the posters or suggest that students review the description of a poster session from the Colorado State University’s Writing Studio, an open-source learning environment—Writing@CSU http://writing.colostate.edu/guides/guide.cfm?guideid=78. In this learning experience, it is suggested that the posters be less technical than those at some professional conference poster sessions and geared for an audience of early childhood educators with varying degrees of experience related to science in the preschool classroom.

Information Delivery

The following sections from the California Preschool Learning Foundations, Volume 3 are referred to in this learning experience:

- Introductory sections to the foundations (pp. 48–60)
Active Learning

Getting it started

Begin this learning experience by asking students to review the introductory sections to the preschool science foundations on pages 48–60 and the glossary on pages 95-96 of the *California Preschool Learning Foundations, Volume 3*. If the students have done Learning Experience 4 in this instructional guide titled “Exploring the Content and Vocabulary of the Science Domain,” remind them of the key points and vocabulary they already identified and discussed. But if this is the first time students are working with the science foundations, students could read the sections outside class or as a jigsaw reading during a class session. Students could work in small groups for the jigsaw approach—each group assigned to one or more of the following sections:

- Introduction, page 48
- Science in Preschool, page 49
- Development of the Whole Child (Science and Other Domains), pages 49–50
- The Preschool Foundations for Science, pages 50–51
- Individual, Cultural, and Linguistic Variations, pages 51–52
- Scientific Inquiry: The Skills and Language of Science, pages 52–53
- Communicating: The Role of Language in Scientific Inquiry, pages 53–55
- Scientific Knowledge: The Content of Science in Preschool, pages 55–56
- Physical Sciences: Early Concepts in Physics, pages 56–57
- Life Sciences: Early Concepts in Biology, pages 57–58

Suggestions are made to have students become familiar with these sections through out-of-class reading assignments, jigsaw reading during a class session, or a recap of previous explorations of this material through another learning experience in this instructional guide.
• Earth Sciences: Early Concepts Related to Earth, pages 58–60

After the students have finished their review or done the reading of their assigned sections, ask students to either report on or discuss the following questions:

• What key points did you take from your reading?
• What was some new or unfamiliar vocabulary that you came across?
• Which of the four strands particularly intrigued you?

**Online Options**

If the class has online-discussion capability, instructors could lead an online discussion with students of these three questions.

**Keeping it going**

Next have students form small groups of three or four who expressed interest in the same strand. Depending on the number of students who self-select for each strand, there may be more than one group who will work on the same strand.

Explain to students that they are to read the section of Bibliographic Notes on their strand and then develop a poster that presents some of the research base and rationale for that strand. The posters should be somewhat similar to those seen at conferences or other forums. If students are not familiar with poster sessions, instructors may wish to explain that posters at professional conferences can range from highly technical research and information for an audience of experts on the topic to general information for a varied and more general audience. The posters the students are designing should be developed for an audience of early childhood educators who have a range of expertise and experience in science for preschoolers. The posters should include text and graphics that present highlights from some of the research articles referenced in the Bibliographic Notes and the relationship of the research to specific foundations in the strand.

Because the posters will require time for planning and assembly, consider doing this learning experience over a couple class sessions—perhaps doing the “Getting it started” section as part of one class, assigning the poster to be done out of class, and then having students present their posters during part of a second class.

**Putting it together**

Conduct a poster session as it is done at a conference, allowing students time to view the different posters and interact with the
presenters. Students from each group could take turns remaining with the poster to describe it and answer questions. Allow enough time for the rotations so that all students have an opportunity to look at the posters and be the presenter.

Taking it further
After all the students have reviewed all the posters, conclude the poster session with a class discussion:

- Which elements from the posters stood out for you? Was there one poster that particularly caught your interest? Why?
- What was the easiest part of creating your poster? The most challenging part?
- How did developing a poster help you understand the research and rationale for the strand you selected?
- What other questions came up for you as you reviewed the Bibliographic Notes and prepared your poster?

Another approach/way
Instead of preparing posters for an audience of early childhood educators, ask students to prepare the posters for parents and other family members. The posters would be part of a back-to-school night, and the purpose of the posters is to explain to parents what children will be learning in the science domain based on the foundations.

Students could present their posters as suggested in the “Putting it together” section or each group could present and describe its poster to the rest of the class. If the second approach is used, allow time for the audience to ask questions, point out highlights of the poster, and make one or two recommendations for improving the poster.

Reflection
These questions could be used for individual or group reflection:

- Which facts from the research highlights on the posters do you remember?
- Which facts were familiar? Which ones were new or caused you to have a different perspective?
- What specific information helped you better understand one or more of the preschool science foundations?
- After viewing all the posters for the different strands, which strand other than the one you already selected would you
choose to explore further? What is a first step you will take in that exploration?

**Deeper Understanding**

Ask students to select three journal references from the list of References and Source Materials on pages 97-101 of the *California Preschool Learning Foundations, Volume 3*. The references should focus on one of the four strands. Ask students to write a short paper that includes summaries of each reference:

- Title and author(s) of the article
- Publication information
- Brief summary of the article
- Key findings that relate to one or more of the foundations in that strand
- How the article supports the student’s understanding of the foundations in the strand

If possible, ask the students to share their summaries or compile them in a way that is accessible to all the students.
Science

*California Preschool Learning Foundations, Volume 3:*
- Introductory sections to the foundations (pp. 48–60)
- Glossary (pp. 95–96)
- Bibliographic Notes (pp. 84–94)
- References and Source Materials (pp. 97–101)
Science

- Introduction, page 48
- Science in Preschool, page 49
- Development of the Whole Child, pages 49–50
- The Preschool Foundations for Science, pages 50–51

Science

- Individual, Cultural, and Linguistic Variations, pages 51–52
- Scientific Inquiry: The Skills and Language of Science, pages 52–53
- Communicating: The Role of Language in Scientific Inquiry, pages 53–55
Science

- Scientific Knowledge: The Content of Science in Preschool, pages 55–56
- Physical Sciences: Early Concepts in Physics, pages 56–57
- Life Sciences: Early Concepts in Biology, pages 57–58
- Earth Sciences: Early Concepts Related to Earth, pages 58–60

Science

- What key points did you take from your reading?
- What was some new or unfamiliar vocabulary that you came across?
- Which of the four strands particularly intrigued you?
Science

**Develop a poster:**
- Choose a strand of interest.
- Read the section of the Bibliographic Notes on the chosen strand.
- Include text and graphics to present highlights from some of the research articles.
- Connect the research findings to specific foundations in the strand.

Science

- Which elements from the posters stood out for you? Was there one poster that particularly caught your interest? Why?
- What was the easiest part of creating your poster? The most challenging part?
Science

- How did developing a poster help you understand the research and rationale for the strand you selected?
- What other questions came up for you as you reviewed the Bibliographic Notes and prepared your poster?

Science

- Which facts from the research highlights on the posters do you remember?
- Which facts were familiar? Which ones were new or caused you to have a different perspective?
Science

• What specific information helped you better understand one or more of the preschool science foundations?
• After viewing all the posters for the different strands, which strand other than the one you already selected would you choose to explore further? What is a first step you will take in that exploration?

Science

• Choose one strand.
• Select 3 relevant journal articles from References and Source Materials (pages 97–101).
• Write a short paper that includes summaries of each reference.
Science

For each article, include:
✓ Title and authors
✓ Publication information
✓ Brief summary
✓ Key findings that relate to one or more of the foundations in the strand
✓ How the article supports your understanding of the foundations in the strand
Science: Exploring the Influence of Family and Culture on the Science Foundations

Focus Statement

Students identify and consider a variety of family and cultural beliefs, values, practices, and circumstances that relate to children’s learning in the science domain and examine the foundations and examples through those perspectives.

Curriculum Alignment Project (CAP) Student Learning Outcomes

The Curriculum Alignment Project’s (CAP) lower division eight courses and student learning outcomes are mapped onto each instructional guide learning experience. See Appendix A for the specific student learning outcomes, objectives, and examples of course content and topics for the courses listed below.

- Child Growth and Development
- Child, Family and Community
- Principle and Practices of Teaching Young Children
- Teaching in a Diverse Society
- Practicum-Field Experience

Instructional Methodologies

- Brainstorming
- Class discussion
- Class presentation
- Pairs or small groups
- Personal reflection
- Reflective discussion

California Early Childhood Educator Competency Areas to Consider

The Faculty Initiative Project will undertake a comprehensive process in the future to map the content of the instructional guides to the California Department of Education, Early Education and Support Division’s California Early Childhood Educator Competency Areas.
Competencies. The “Competency Areas to Consider” below are listed in this instructional guide as a preliminary exploration of how particular competency areas might be addressed through these learning experiences.

- Child Development and Learning
- Culture, Diversity, and Equity
- Family and Community Engagement
- Learning Environments and Curriculum
- Professionalism
## Science:
Exploring the Influence of Family and Culture on the Science Foundations

### Before You Start

Children vary in their cultural backgrounds. As much as the development of scientific concepts is universal and salient in all cultures, cultural background may shape the development of some scientific concepts. Research indicates that the language to which children are exposed and culturally shared belief systems may play a role in children's development of core biological concepts and reasoning (Anggoro, Waxman, and Medin 2005; Waxman and Medin 2006; Hatano and others 1993) (*California Preschool Learning Foundations, Volume 3*, pp. 51–52).

Children in California are remarkably diverse in their individual qualities such as temperament and personality as well as in their family and cultural backgrounds. Teachers need to be aware of, sensitive to, and respectful of this diversity that is seen in families’ home languages, values, cultural beliefs and traditions, and everyday practices.

In this learning experience, students will review the foundations and consider different family, community, and cultural factors that may impact children’s acquisition of some of the competencies described in the foundations. Some of these factors may bring up uncomfortable or sensitive memories or issues for some students, so it is important that information be presented in as objective a manner as possible. It may be helpful to preface this discussion with the reminder that increased understanding of families’ different belief systems and practices will help students be better prepared to partner with families in supporting children’s development in the science foundations.

It is suggested that students also review some of the examples for the foundations. If instructors have access to several copies of the *California Preschool Learning Foundations, Volume 3*, students could use them for this review. The publication is also available online at [http://www.cde.ca.gov/sp/cd/re/psfoundations.asp#psfoundvol3](http://www.cde.ca.gov/sp/cd/re/psfoundations.asp#psfoundvol3). Students with electronic devices such as laptops or tablets may be able to view the downloaded publication during class.

### Information Delivery

Students will be asked to identify different examples of diversity that characterize California’s children and families. The section on pages 3–5 of the *California Preschool Curriculum Framework,*
Volume 1 describes some of these characteristics and may be used as background reading or part of a lecture.

Examples from the California Preschool Learning Foundations, Volume 3 are also referred to in the discussions of cultural beliefs and science. The last paragraph in the right-hand column on page 51 through the top of the right-hand column on page 52 discusses possible roles that culture and language may have in children’s acquisition of science concepts. Additional studies that illustrate cultural influences on certain science concepts are found in the last paragraph in the left-hand column on page 90 through the top of the right-hand column on page 91.

**Getting it started**

Begin by asking students to think about the many kinds of diversity that children and families bring to California’s preschool programs. Instructors may want to give students time to review pages 3–5 in the California Preschool Curriculum Framework, Volume 1 for some examples. Chart all the students’ ideas and, as a group, identify the ones that students believe have an impact on children’s development of science skills and knowledge. For example, a family’s socioeconomic status could impact where a child lives and the opportunities for the child to play and explore outdoors, especially if the family lives in a very urban community. The child may not have had as much firsthand experience with the effects of weather and seasonal changes on plants. An example of the influence of culture and language on children’s beliefs about the concept of life is described on page 90 of the California Preschool Learning Foundations, Volume 3.

**Keeping it going**

Next ask students to find a partner or form a small group with two or three other students. Each group is to review a certain number of the preschool science foundations and examples and discuss ways that each of the considerations listed on the chart might impact the child’s development of the skill or knowledge described in each foundation. Suggest that the group come...
up with examples, when possible, to illustrate their thinking.

**Putting it together**
Provide time for each group to share its work and invite the other students to ask questions and add other ways children’s family and cultural backgrounds might influence children’s demonstration of certain competencies.

**Online Options**
If the class has online-discussion capability, students could discuss other students’ summaries. If this approach were used, it would be important for the instructor to clearly identify each summary with some kind of agreed upon system so that students can readily comment on the appropriate one.

**Taking it further**
After all the groups have presented their ideas, ask the class to think about this statement from pages 51–52 of the *California Preschool Learning Foundations, Volume 3*:

> Children vary in their cultural backgrounds. As much as the development of scientific concepts is universal and salient in all cultures, cultural background may shape the development of some scientific concepts. Research indicates that the language to which children are exposed and culturally shared belief systems may play a role in children’s development of core biological concepts and reasoning (Anggoro, Waxman, and Medin 2005; Waxman and Medin 2006; Hatano and others 1993).

Ask students to discuss how they would approach different cultural beliefs in their work with young children and the science foundations. For example, if a child consistently “. . . attribute[d] to inanimate entities (e.g., a rock) attributes that are unique to living things” (*California Preschool Learning Foundations, Volume 3*, page 90), how might you determine the child’s understanding of the foundation in the Physical Sciences strand, “Properties and Characteristics of Nonliving Objects,” and the foundation in the Life Sciences strand, “Properties and Characteristics of Living Things”?

**Another approach/way**
Instead of assigning a certain number of foundations to each group of students, instructors could assign one or two of the family and cultural considerations identified by the class to each group. Each group then reviews all the foundations with the lens of the considerations it was assigned.
Online Options

If the class has document-sharing capability, each group could post its summary of the foundations it feels might be impacted by the specific family or cultural considerations assigned.

Reflection

The following questions can be used for a closing class discussion or individual reflection:

- Which consideration on the list stands out the most for you? Why?
- Which considerations and examples were familiar to you? Which were new or caused you to have a different perspective?
- Which preschool science foundations do you think would be most impacted by a child’s family, community, linguistic, and cultural background and experiences? Why?
- How would you learn about some of the cultural beliefs of children in your classroom that might relate to the science foundations?
Children in California

Preschool children in California include those who:

- Are culturally diverse
- May speak a language other than English
- Have different abilities
- Come from diverse socioeconomic backgrounds
Children in California

California's children are racially and ethnically diverse.

- Refers to all children ages birth to 18 years

Children in California

Nearly half of all California’s children are growing up in a poor or low income household, where a family of 4 earns less than $45,622 annually.

- Refers to all children ages birth to 18 years
Science

- Almost half of all children living in California live in immigrant families.
- 22% of students in California are English learners.
- The majority of students who are English learners are native Spanish speakers.

~ Refers to all children ages birth to 18 years

“Science is for all students, regardless of age, sex, cultural ethnic background, disabilities, aspirations, or interest and motivation in science.”

(National Committee on Science Education Standards and Assessment and National Research Council 1996, 20)
Science

- Children approach scientific inquiry and explanation having various linguistic, social, and cognitive skills.
- Cultural background may shape the development of some scientific concepts.
- Experiences with the natural world affect children’s understanding of science concepts.

Science

- Many children in California are learning about scientific concepts and skills while acquiring English.
- Some children may communicate their science knowledge and skills using nonverbal means of communication.
How might children’s family and cultural backgrounds impact their development of the skill or knowledge described in each science foundation?

While the development of scientific concepts is universal and salient in all cultures, cultural background may shape the development of some scientific concepts.
The language to which children are exposed and culturally shared belief systems may play a role in children’s development of core biological concepts and reasoning. (Anggoro, Waxman, and Medin 2005; Waxman and Medin 2006; Hatano and others 1993)

How would you approach different cultural beliefs in your work with young children and the science foundations?
Science

- Which consideration stands out the most for you? Why?
- Which considerations and examples were familiar to you? Which were new or caused you to have a different perspective?

Science

- Which preschool science foundations do you think would be most impacted by a child’s family, community, linguistic, and cultural background and experiences? Why?
- How would you learn about some of the cultural beliefs of children in your classroom that might relate to the science foundations?
Science: Identifying Family and Cultural Connections to the Science Foundations

Focus Statement

Students identify ways that children’s experiences and activities in their homes and communities support their acquisition of the competencies addressed in the science foundations.

Curriculum Alignment Project (CAP) Student Learning Outcomes

The Curriculum Alignment Project’s (CAP) lower division eight courses and student learning outcomes are mapped onto each instructional guide learning experience. See Appendix A for the specific student learning outcomes, objectives, and examples of course content and topics for the courses listed below.

• Child, Family and Community
• Introduction to Curriculum
• Principle and Practices of Teaching Young Children
• Teaching in a Diverse Society
• Practicum-Field Experience

Instructional Methodologies

• Class discussion
• Class presentation
• Development of resource tool
• Interview
• Pairs and small groups
• Peer review and feedback
• Personal reflection
• Reflective discussion
California Early Childhood Educator Competency Areas to Consider

The Faculty Initiative Project will undertake a comprehensive process in the future to map the content of the instructional guides to the California Department of Education, Early Education and Support Division’s *California Early Childhood Educator Competencies*. The “Competency Areas to Consider” below are listed in this instructional guide as a preliminary exploration of how particular competency areas might be addressed through these learning experiences.

- Culture, Diversity, and Equity
- Family and Community Engagement
- Learning Environments and Curriculum
- Leadership in Early Childhood Education
- Professionalism
Science: Identifying Family and Cultural Connections to the Science Foundations

Before You Start

“Children are different from one another and vary in their abilities, family and socioeconomic background, home experiences, and cultural heritage and values. Therefore, they may vary in the way they develop and display the knowledge and skills described in the foundations” (California Preschool Learning Foundations, Vol. 3, p. 51).

Just as children are different in the way they acquire the competencies addressed in the science foundations, families also may have very different ideas about what science in the preschool classroom means. Some families may think that science is field trips to science-themed museums or doing simple experiments such as seeing what objects float or don’t float. They may not consider their children’s play with sand and water or interest in finding things for their toy cars to roll down as science.

In this learning experience, students will review the preschool science foundations and think of examples of how children might demonstrate the knowledge and skills addressed by the foundations in their home and community settings. After developing several examples, students will write an article for a family newsletter that explains the foundations to families and incorporates some of the examples.

If students do not have hard copies of the California Preschool Learning Foundations, Volume 3, they can download the publication from the California Department of Education Web site at http://www.cde.ca.gov/sp/cd/re/psfoundations.asp#psfoundvol3. The number of sets of foundations for students to review will depend on how instructors assign the foundations to individual or groups of students. Instructors may wish to provide students with the option of bringing hard copies of the foundations or a laptop computer or other digital device that has a copy of the foundations loaded on it.

If instructors use the carousel approach for students to list their examples, it is recommended to prepare the sheets ahead of class. Each sheet will have one foundation written at the top—strand name, substrand name, and foundation number—so 20 sheets will be needed. A list of the foundation numbers by strand and substrand is provided in the “Information Delivery” section of this learning experience.

Students will be creating newsletter articles or notes to families or developing a presentation. Instructors may want to do part of this learning experience at one class session and then give students out-of-class time to prepare their articles, notes, or presentations.
Information Delivery

Students will work with the science foundations and examples on pages 61–83 of the *California Preschool Learning Foundations, Volume 3*. The following table summarizes the number of foundations by strand and substrand. Instructors may wish to refer to this table when assigning the foundations to students.

<table>
<thead>
<tr>
<th>Strand</th>
<th>Substrand</th>
<th>Foundation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scientific Inquiry</td>
<td>1.0 Observation and Investigation</td>
<td>1.1</td>
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<td></td>
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<td>1.2</td>
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<td>1.6</td>
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<td></td>
<td>2.0 Documentation and Communication</td>
<td>2.1</td>
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<tr>
<td></td>
<td></td>
<td>2.2</td>
</tr>
<tr>
<td>Physical Sciences</td>
<td>1.0 Properties and Characteristics of Nonliving Objects and Materials</td>
<td>1.1</td>
</tr>
<tr>
<td></td>
<td>2.0 Changes in Nonliving Objects and Materials</td>
<td>2.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.2</td>
</tr>
<tr>
<td>Life Sciences</td>
<td>1.0 Properties and Characteristics of Living Things</td>
<td>1.1</td>
</tr>
<tr>
<td></td>
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<td>1.2</td>
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<tr>
<td></td>
<td></td>
<td>1.4</td>
</tr>
<tr>
<td></td>
<td>2.0 Changes in Living Things</td>
<td>2.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.2</td>
</tr>
<tr>
<td>Earth Sciences</td>
<td>1.0 Properties and Characteristics of Earth Materials and Objects</td>
<td>1.1</td>
</tr>
<tr>
<td></td>
<td>2.0 Changes in the Earth</td>
<td>2.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.3</td>
</tr>
</tbody>
</table>
Strand | Substrand | Foundation
--- | --- | ---
Earth Sciences | 2.0 Changes in the Earth (continued) | 2.4

**Getting it started**
Students begin this learning experience by reading the examples in all the foundations and identifying those that could be observed at children’s homes or in other community settings. Students can work individually or in pairs or small groups, and instructors could ask them to review all the foundations or assign specific foundations to each student or group of students.

**Keeping it going**
Continue by asking students to develop several additional examples for each foundation. These examples should describe children demonstrating a foundation in their home or community. Encourage the students to think of as many different kinds of behaviors as possible and to consider characteristics such as different kinds of home settings, types of communities, cultural beliefs and practices, languages, and seasons.

If the instructor assigned specific foundations to students, they could come up with examples for the foundations they already reviewed. Or instructors could have all the students work on all the foundations by using a carousel approach. Write the strands, substrands, and foundation numbers on the tops of sheets of paper, one strand/substrand/foundation per sheet. Then give one sheet to each student or group of students, and the students write an example on the sheet. Then after a few minutes, students pass the sheet to another student until all the sheets have several examples on them. The number of times the students pass the sheets will depend on the number of students and the amount of class time available.

**Putting it together**
At this point ask students to form pairs or small groups if they have not already done so. Each group is to review the list of examples generated for a foundation. They are to group any examples that
seem similar and rewrite the example if needed. They then choose three to five examples that represent different ways children are demonstrating competency in that foundation and reflect varying family and cultural beliefs and practices.

**Taking it further**
Students now create a newsletter article or note for families that describes what science in their preschool class is about, explains the foundation, and includes examples of how they might see their children demonstrating the foundation at home or in their community. Students could include a photo or drawing.

Students share their work by either passing the articles or notes around the class until all students have reviewed all the articles or by reading their articles/notes to the rest of the class. Whichever approach is used, encourage students to take notes on the words, ideas, examples, and design of the articles or notes.

**Another approach/way**
Instead of writing an article or note, students could develop a short presentation that a teacher might do at a back-to-school night. Students include the same information in the presentation that they were to put in the newsletter article or family note.

**Reflection**
The following questions could be used for a closing discussion or individual reflection:

- What words, ideas, examples, or design features stood out from your review of all the articles?
- Which examples seemed familiar to you? Which ones were very different from your prior experiences with children and families?
- How did creating examples and writing the articles (or developing presentations) increase your awareness and understanding of the diversity of family, community, and cultural backgrounds and experiences that children have that relate to the science foundations?
- What considerations will you keep in mind when applying the science foundations to your work with children and families?
Deeper Understanding

Ask students to share their articles or notes with parents of preschoolers. If possible, students should show the parents three or four different articles—possibly one for each of the science strands. Students can explain that they are interested in finding out what families think about science in the preschool and different families’ beliefs, cultures, and practices that teachers should consider in helping children learn science.

Students then interview the parents about their impressions of the articles:

- What in the article or note stands out to you?
- What do you like about the article?
- What parts of the article are not clear?
- What did you learn about science and children from this article?
- What are some recommendations for improving the article? What other considerations about your family and community would you like to share that teachers should keep in mind when teaching science?

If instructors ask students to write up their interviews, be sure to have students get the parents’ permission to share their comments. Instructors might also suggest that parents have the option of being anonymous if the interviews are shared.

Online Options

Students could write up their interviews with the parents and post these online as resources for other students after instructor review.
Science

Scientific Inquiry
(skills and language related to science)
1.0 Observation and Investigation
2.0 Documentation and Communication

Physical Sciences
1.0 Properties and Characteristics of Nonliving Objects and Materials
2.0 Changes in Nonliving Objects and Materials
Science

Life Sciences
1.0 Properties and Characteristics of Living Things
2.0 Changes in Living Things

Earth Sciences
1.0 Properties and Characteristics of Earth Materials and Objects
2.0 Changes in the Earth

Family and Cultural Connections
- Identify examples in the foundations that could be observed in children’s homes or community settings.
- Develop additional examples of children demonstrating the knowledge and skills addressed by the foundations in their homes and communities.
- Consider different home settings, communities, cultural beliefs and practices, languages, and seasons.
Science

Family and Cultural Connections

• Prepare an article or presentation for families that describes science in preschool, explains the foundation(s), and includes examples of how parents might see their children demonstrating the foundation(s) at home or in their community.

• Include a photo or drawing.

Science

• What words, ideas, examples, or design features stood out?

• Which examples seemed familiar to you? Which ones were very different from your prior experiences with children and families?
Science

• How did creating examples and/or an article or presentation increase your awareness and understanding of the diversity of family, community, and cultural backgrounds and experiences that children have related to the science foundations?

Science

• What considerations will you keep in mind when applying the science foundations to your work with children and families?
Science

Questions for Parents:
• What information stands out to you?
• What do you like about the article?
• What parts are not clear?
• What did you learn about science and children?

Science

Questions for Parents:
• What are some recommendations for improving the article?
• What other considerations about your family and community would you like to share that teachers should keep in mind when teaching science?
Science:
Exploring Examples of the Science Domain
in the Early Care and Education Setting

Focus Statement

Students explore the examples of foundations in the science domain and then engage in classroom observations to look for additional examples of the foundations in action. This learning experience is designed to help students understand that the examples in the foundations are not criteria and that children will demonstrate the foundations in many settings and ways.

Curriculum Alignment Project (CAP) Student Learning Outcomes

The Curriculum Alignment Project’s (CAP) lower division eight courses and student learning outcomes are mapped onto each instructional guide learning experience. See Appendix A for the specific student learning outcomes, objectives, and examples of course content and topics for the courses listed below.

- Introduction to Curriculum
- Principle and Practices of Teaching Young Children
- Observation and Assessment
- Practicum-Field Experience

Instructional Methodologies

- Brainstorming
- Class discussion
- Development of resource tool
- Observations
- Pairs or small groups
- Reflective discussion

California Early Childhood Educator Competency Areas to Consider

The Faculty Initiative Project will undertake a comprehensive process in the future to map the content of the instructional guides to the California Department of Education,
Early Education and Support Division’s *California Early Childhood Educator Competencies*. The “Competency Areas to Consider” below are listed in this instructional guide as a preliminary exploration of how particular competency areas might be addressed through these learning experiences.

- Child Development and Learning
- Observation, Screening, Assessment, and Documentation
- Learning Environments and Curriculum
- Professionalism
Before You Start

In this learning experience, students are asked to observe children in group settings and watch for examples of children’s behavior that demonstrate foundations in the science domain. Because the content of this domain might be less familiar than other domains to students, it will be important to familiarize them with the strands and substrands of this domain and with some of the examples for each foundation before they are asked to observe in early care and education settings. One way to do this is to have students do Learning Experience 3 in this domain titled “Piecing Together the Science Domain Content Puzzle.”

The first strand of the science domain is Scientific Inquiry, and it is highlighted in this learning experience so that all students have exposure to its content. This is done so that all students can become familiar with the underlying process that supports inquiry in the other science domains.

Building example banks is a feature of every domain in each of the instructional guides for the three volumes of the California Preschool Learning Foundations. This has been done to emphasize in each domain that the examples presented for each foundation are neither assessment to be used as a checklist nor curriculum suggestions. It is also designed to expand students’ observation skills and to help students understand that what they see in early care and education settings are the foundations in action.

Two handouts are provided with this learning experience. Handout 1 is a list of the foundations for the science domain, and Handout 2 is an observation guide, which students can use when they do their classroom observations. Electronic versions of these handouts will be available when this instructional guide is online at www.wested.org/facultyinitiative.

Students also will review the examples provided for the foundations. If instructors have access to several copies of the California Preschool Learning Foundations, Volume 3, students could use them for this review. The publication is also available online at http://www.cde.ca.gov/sp/cd/re/psfoundations.asp#psfoundvol3. Students with electronic devices such as laptops or tablets may be able to view the downloaded publication during class.
Foundations, Volume 3. This text addresses the use of examples in the foundations and emphasizes that the examples are not to be used as assessment or curriculum but as ways in which children might demonstrate the attainment of a foundation. This text also stresses that children might demonstrate behaviors that show the foundations in action in a variety of early care and education contexts, such as “engaging in imaginative play, exploring the environment and materials, making discoveries, being inventive, or interacting with peers, teachers, or other adults (California Preschool Learning Foundations, Volume 3, p. xiv).”

Many of the foundations will be demonstrated through the use of language, and students should be prepared to observe children expressing themselves in any language or nonverbally.

After discussing how examples are used in the foundations, review the strands and substrands in this domain in class before students do their observations. This can be done by by asking students to read the foundations aloud in turn. A summary list of the foundations can be found in the science domain in Appendix B of the California Preschool Learning Foundations, Volume 3 on pages 108–112 and as a handout for this learning experience.

Reviewing a few of the examples for each foundation as you go through them will also be helpful for many students. It will be important here to remind students again that examples are neither assessment nor curriculum suggestions. As you do this, you might ask students which of the early care and education contexts (from page xiv of the Introduction to the California Preschool Learning Foundations, Volume 3) an example represents. It is likely that many examples will represent more than one context.

Another way to familiarize students with this domain is to have them do Learning Experience 3 mentioned in the “Before You Start” section, “Piecing Together the Science Domain Content Puzzle.”

Active Learning

Getting it started
Organize students into pairs or groups of three. Assign each group or pair to the Scientific Inquiry strand and one other strand. It is important for each pair or group to work with the Scientific Inquiry strand because it is the fundamental process that is applied to and used in the other three strands. In addition, the substrands are different in the Scientific Inquiry strand from the substrands that are consistent in the other strands. Because of these variations, it is important for students to become familiar with the differing structures of the strands.
As students begin their work in pairs or groups, ask them first to concentrate on the foundations in the Scientific Inquiry strand. Ask them to read through the examples for this strand and discover examples that they have seen or heard young children demonstrate.

Next, again having them work in their pairs or groups, ask them to think of other ways they have observed, heard of, or can think of children possibly demonstrating each foundation in this strand. They can write down notes or examples on the summary handout or on other sheets of paper.

Guide them through this same process for their additional strand.

**Keeping it going**
Building an example bank can then be done to extend and further support students’ understanding of the foundations in this domain and that the examples are neither assessment nor curriculum.

Ask students to observe children in a preschool classroom. This could be where they are currently working or where they might have approved access to do an observation. If the observation can be done in pairs, it will increase the learning as each pair reviews and discusses its observations. Assign specific strands to individual students or pairs to focus their observations. Assigning the Scientific Inquiry strand with one other strand, as done in the “Getting it started” section, would be helpful for students to increase their familiarity with the Scientific Inquiry strand. Be sure students still have Handout 1, the summary of the science domain foundations, and Handout 2, the “Observation Guide” for this learning experience.

Remind the students that, when they look for examples, they are looking for observable behaviors or actions that demonstrate the foundations in action. The point of this exercise is not to assess children’s development but rather to explore the foundations and see where and how children demonstrate aspects of these foundations in their daily activities. Students might be unsure if something is an example or they might be reluctant to label the development that they are observing, but suggest that they just document what they see as examples of the foundations and bring their observations back to class for discussion. It is in the discussion that greater understanding and clarity will emerge.
Putting it together
Ask students to bring their list of examples to class. Give students chart paper or whiteboard space so that they can display the examples they observed. Each student can write the examples out on strips of paper or list the examples on chart paper so that the entire class can see them. Be sure the examples are arranged by the strands or substrands that were observed.

Give students time to walk about and see what has emerged. Remind students that it is unlikely that they will see all the science foundations in a single observation. Children will demonstrate behaviors related to the foundations over many activities and over repeated experiences over time.

Be sure that the examples are collected and made available as a resource to students. This can be their example bank.

Then ask students to reflect on their observations, using the following questions:

• Is there anything you particularly noticed about all the examples?
• Were there some contexts or routines in the classroom where it was easy to see certain foundations in action? Which ones?
• Did some foundations appear in some routines or contexts and not others? Which were they and when did they appear?
• Were there some contexts or routines in the classroom where it was difficult to see science foundations in action?
• What does this tell you about the importance of ongoing observation in early care and education settings?
• What are the implications of this for your current or future work with young children?

Reflection

Online Options
Students could post their observations online for review by their classmates. If the class has online-discussion capability, the questions could be explored through an instructor led discussion online.
### Science

#### Scientific Inquiry

##### 1.0 Observation and Investigation

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.1</strong> Demonstrate curiosity and raise simple questions about objects and events in their environment.</td>
<td><strong>1.1</strong> Demonstrate curiosity and an increased ability to raise questions about objects and events in their environment.</td>
</tr>
<tr>
<td><strong>1.2</strong> Observe objects and events in the environment and describe them.</td>
<td><strong>1.2</strong> Observe objects and events in the environment and describe them in greater detail.</td>
</tr>
<tr>
<td><strong>1.3</strong> Begin to identify and use, with adult support, some observation and measurement tools.</td>
<td><strong>1.3</strong> Identify and use a greater variety of observation and measurement tools. May spontaneously use an appropriate tool, though may still need adult support.</td>
</tr>
<tr>
<td><strong>1.4</strong> Compare and contrast objects and events and begin to describe similarities and differences.</td>
<td><strong>1.4</strong> Compare and contrast objects and events and describe similarities and differences in greater detail.</td>
</tr>
<tr>
<td><strong>1.5</strong> Make predictions and check them, with adult support, through concrete experiences.</td>
<td><strong>1.5</strong> Demonstrate an increased ability to make predictions and check them (e.g., may make more complex predictions, offer ways to test predictions, and discuss why predictions were correct or incorrect).</td>
</tr>
<tr>
<td><strong>1.6</strong> Make inferences and form generalizations based on evidence.</td>
<td><strong>1.6</strong> Demonstrate an increased ability to make inferences and form generalizations based on evidence.</td>
</tr>
</tbody>
</table>

1. Other related scientific processes, such as classifying, ordering, and measuring, are addressed in the foundations for mathematics.

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2.0 Documentation and Communication

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Record observations or findings in various ways, with adult assistance, including pictures, words (dictated to adults), charts, journals, models, and photos.</td>
<td>2.1 Record information more regularly and in greater detail in various ways, with adult assistance, including pictures, words (dictated to adults), charts, journals, models, photos, or by tallying and graphing information.</td>
</tr>
<tr>
<td>2.2 Share findings and explanations, which may be correct or incorrect, with or without adult prompting.</td>
<td>2.2 Share findings and explanations, which may be correct or incorrect, more spontaneously and with greater detail.</td>
</tr>
</tbody>
</table>

Physical Sciences

1.0 Properties and Characteristics of Nonliving Objects and Materials

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Observe, investigate, and identify the characteristics and physical properties of objects and of solid and nonsolid materials (size, weight, shape, color, texture, and sound).</td>
<td>1.1 Demonstrate increased ability to observe, investigate, and describe in greater detail the characteristics and physical properties of objects and of solid and nonsolid materials (size, weight, shape, color, texture, and sound).</td>
</tr>
</tbody>
</table>

2.0 Changes in Nonliving Objects and Materials

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<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>2.1 Demonstrate awareness that objects and materials can change; explore and describe changes in objects and materials (rearrangement of parts; change in color, shape, texture, temperature).</td>
<td>2.1 Demonstrate an increased awareness that objects and materials can change in various ways. Explore and describe in greater detail changes in objects and materials (rearrangement of parts; change in color, shape, texture, form, and temperature).</td>
</tr>
</tbody>
</table>
### 2.0 Changes in Nonliving Objects and Materials (continued)

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2.2</strong> Observe and describe the motion of objects (in terms of speed, direction, the ways things move), and explore the effect of own actions (e.g., pushing, pulling, rolling, dropping) on making objects move.</td>
<td><strong>2.2</strong> Demonstrate an increased ability to observe and describe in greater detail the motion of objects (in terms of speed, direction, the ways things move), and to explore the effect of own actions on the motion of objects, including changes in speed and direction.</td>
</tr>
</tbody>
</table>

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### Life Sciences

#### 1.0 Properties and Characteristics of Living Things

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.1</strong> Identify characteristics of a variety of animals and plants, including appearance (inside and outside) and behavior, and begin to categorize them.</td>
<td><strong>1.1</strong> Identify characteristics of a greater variety of animals and plants and demonstrate an increased ability to categorize them.</td>
</tr>
<tr>
<td><strong>1.2</strong> Begin to indicate knowledge of body parts and processes (e.g., eating, sleeping, breathing, walking) in humans and other animals.</td>
<td><strong>1.2</strong> Indicate greater knowledge of body parts and processes (e.g., eating, sleeping, breathing, walking) in humans and other animals.</td>
</tr>
<tr>
<td><strong>1.3</strong> Identify the habitats of people and familiar animals and plants in the environment and begin to realize that living things have habitats in different environments.</td>
<td><strong>1.3</strong> Recognize that living things have habitats in different environments suited to their unique needs.</td>
</tr>
<tr>
<td><strong>1.4</strong> Indicate knowledge of the difference between animate objects (animals, people) and inanimate objects. For example, expect animate objects to initiate movement and to have different insides than inanimate objects.</td>
<td><strong>1.4</strong> Indicate knowledge of the difference between animate and inanimate objects, providing greater detail, and recognize that only animals and plants undergo biological processes such as growth, illness, healing, and dying.</td>
</tr>
</tbody>
</table>

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2. The knowledge of body parts is also addressed in the *California Preschool Foundations (Volume 2)* for health. In science, it also includes the knowledge of body processes. Knowledge of body parts is extended to those of humans and other animals.

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### 2.0 Changes in Living Things

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>2.1</strong> Observe and explore growth and changes in humans, animals, and plants and demonstrate an understanding that living things change over time in size and in other capacities as they grow.</td>
<td><strong>2.1</strong> Observe and explore growth in humans, animals, and plants and demonstrate an increased understanding that living things change as they grow and go through transformations related to the life cycle (for example, from a caterpillar to butterfly).</td>
</tr>
<tr>
<td><strong>2.2</strong> Recognize that animals and plants require care and begin to associate feeding and watering with the growth of humans, animals, and plants.</td>
<td><strong>2.2</strong> Develop a greater understanding of the basic needs of humans, animals, and plants (e.g., food, water, sunshine, shelter).</td>
</tr>
</tbody>
</table>
# Earth Sciences

## 1.0 Properties and Characteristics of Earth Materials and Objects

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Investigate characteristics (size, weight, shape, color, texture) of earth materials such as sand, rocks, soil, water, and air.</td>
<td>1.1 Demonstrate increased ability to investigate and compare characteristics (size, weight, shape, color, texture) of earth materials such as sand, rocks, soil, water, and air.</td>
</tr>
</tbody>
</table>

## 2.0 Changes in the Earth

| 2.1 Observe and describe natural objects in the sky (sun, moon, stars, clouds) and how they appear to move and change. | 2.1 Demonstrate an increased ability to observe and describe natural objects in the sky and to notice patterns of movement and apparent changes in the sun and the moon. |
| 2.2 Notice and describe changes in weather. | 2.2 Demonstrate an increased ability to observe, describe, and discuss changes in weather. |
| 2.3 Begin to notice the effects of weather and seasonal changes on their own lives and on plants and animals. | 2.3 Demonstrate an increased ability to notice and describe the effects of weather and seasonal changes on their own lives and on plants and animals. |
| 2.4 Develop awareness of the importance of caring for and respecting the environment and participate in activities related to its care. | 2.4 Demonstrate an increased awareness and the ability to discuss in simple terms how to care for the environment, and participate in activities related to its care. |

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### Observation Guide: Exploring Examples of the Science Domain

<table>
<thead>
<tr>
<th>Strand: Scientific Inquiry</th>
<th>Substrand: Observation and Investigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setting:</td>
<td></td>
</tr>
<tr>
<td>Examples:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strand: Scientific Inquiry</th>
<th>Substrand: Documentation and Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setting:</td>
<td></td>
</tr>
<tr>
<td>Examples:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strand: Physical Sciences</th>
<th>Substrand: Properties and Characteristics of Nonliving Objects and Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setting:</td>
<td></td>
</tr>
<tr>
<td>Examples:</td>
<td></td>
</tr>
</tbody>
</table>
### Observation Guide:
Exploring Examples of the Science Domain (Continued)

#### Strand: Physical Sciences
Substrand: Changes in Nonliving Objects and Materials

<table>
<thead>
<tr>
<th>Setting:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examples:</td>
</tr>
</tbody>
</table>

#### Strand: Life Sciences
Substrand: Properties and Characteristics Living Things

<table>
<thead>
<tr>
<th>Setting:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examples:</td>
</tr>
</tbody>
</table>

#### Strand: Life Sciences
Substrand: Changes in Living Things

<table>
<thead>
<tr>
<th>Setting:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examples:</td>
</tr>
</tbody>
</table>
### Observation Guide:
Exploring Examples of the Science Domain (Continued)

<table>
<thead>
<tr>
<th>Strand: Earth Sciences</th>
<th>Substrand: Properties and Characteristics of Earth Materials and Objects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setting:</td>
<td>Examples:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strand: Earth Sciences</th>
<th>Substrand: Changes in the Earth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setting:</td>
<td>Examples:</td>
</tr>
</tbody>
</table>
Science

Examples listed in the foundations:

- Suggest possible ways children may demonstrate the competencies addressed in the foundations.
- Illustrate contexts in which children may show the competencies described in the foundations.
Science

Examples listed in the foundations:

• Show that children learn while engaging in imaginative play, exploring the environment and materials, making discoveries, being inventive, or interacting with peers, teachers, or other adults.

• Illustrate possible behaviors and are not exhaustive of the many ways children may demonstrate the competencies.

Science

Scientific Inquiry
(skills and language related to science)

1.0 Observation and Investigation
2.0 Documentation and Communication

Physical Sciences

1.0 Properties and Characteristics of Nonliving Objects and Materials
2.0 Changes in Nonliving Objects and Materials
Science

Life Sciences
1.0 Properties and Characteristics of Living Things
2.0 Changes in Living Things

Earth Sciences
1.0 Properties and Characteristics of Earth Materials and Objects
2.0 Changes in the Earth

Science

Scientific Inquiry

1.0 Observation and Investigation

<table>
<thead>
<tr>
<th>At around 45 months of age</th>
<th>At around 90 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Demonstrate curiosity and raise simple questions about objects and events in their environment.</td>
<td>1.1 Demonstrate curiosity and an increased ability to raise questions about objects and events in their environment.</td>
</tr>
<tr>
<td>1.2 Observe objects and events in the environment and describe them.</td>
<td>1.2 Observe objects and events in the environment and describe them in greater detail.</td>
</tr>
<tr>
<td>1.3 Begin to identify and use, with adult support, some observation and measurement tools.</td>
<td>1.3 Identify and use a greater variety of observation and measurement tools. May spontaneously use an appropriate tool, though may still need adult support.</td>
</tr>
<tr>
<td>1.4 Compare and contrast objects and events and begin to describe similarities and differences.</td>
<td>1.4 Compare and contrast objects and events and describe similarities and differences in greater detail.</td>
</tr>
</tbody>
</table>
Science

Observation Guide:
Exploring Examples of the Science Domain

- **Strand: Scientific Inquiry**
  - Substrand: Observation and Investigation
  - Setting:
  - Examples:

- **Strand: Scientific Inquiry**
  - Substrand: Documentation and Communication
  - Setting:
  - Examples:

- **Strand: Physical Sciences**
  - Substrand: Properties and Characteristics of Nonliving Objects and Materials
  - Setting:

Science

- Is there anything you particularly noticed about all the examples?

- Were there some contexts or routines in the classroom where it was easy to see certain foundations in action? Which ones?
Science

- Did some foundations appear in some routines or contexts and not others? Which were they and when did they appear?

- Were there some contexts or routines in the classroom where it was difficult to see science foundations in action?

Science

- What does this tell you about the importance of ongoing observation in early care and education settings?

- What are the implications of this for your current or future work with young children?
Science:
Exploring the Use of Picture Books to Support the Science Foundations in Early Care and Education Settings

Focus Statement

Students will become familiar with the content of the science foundations by identifying picture books that relate to the four strands.

Curriculum Alignment Project (CAP) Student Learning Outcomes

The Curriculum Alignment Project’s (CAP) lower division eight courses and student learning outcomes are mapped onto each instructional guide learning experience. See Appendix A for the specific student learning outcomes, objectives, and examples of course content and topics for the courses listed below.

• Child, Family and Community
• Introduction to Curriculum
• Principle and Practices of Teaching Young Children
• Practicum-Field Experience

Instructional Methodologies

• Creation of a visual representation
• Development of resource tool
• Guided experience in the community (i.e., visit to local library)
• Pairs or small groups
• Peer review and feedback
• Personal reflection
• Reflective discussion

California Early Childhood Educator Competency Areas to Consider

The Faculty Initiative Project will undertake a comprehensive process in the future to map the content of the instructional guides to the California Department of Education, Early Education and Support Division’s California Early Childhood Educator Competencies. The “Competency Areas to Consider” below are listed in this
instructional guide as a preliminary exploration of how particular competency areas might be addressed through these learning experiences.

- Child Development and Learning
- Family and Community Engagement
- Learning Environments and Curriculum
- Professionalism
Science: Exploring the Use of Picture Books to Support the Science Foundations in Early Care and Education Settings

Before You Start

This learning experience provides an opportunity for students to find and explore picture books for young children that are related to the science foundations. They will be searching for books that are related to the foundations, which also will provide children with age-appropriate information in a literacy-based format that they can understand and enjoy. This is especially important because there are many commercial books available that might appear appropriate to this topic but that involve situations that are neither accurate nor based on evidence. Though fantasy and imaginative scenarios are important when appropriately included in children’s literature, the use of books to support children’s understanding of the science foundations should present science-based information. Several trustworthy sources of such books are the following organizations:

- American Library Association
  [http://www.ala.org/offices/publishing/booklist/booklinks/resources/readaloudscience](http://www.ala.org/offices/publishing/booklist/booklinks/resources/readaloudscience)

- Children and Nature Network
  [http://www.childrenandnature.org/resources/center/](http://www.childrenandnature.org/resources/center/)

- KinderNature

- National Science Teachers Association

- U.S. Department of Education, Office of Communications and Outreach, Helping Your Child Learn Science

This learning experience also will provide opportunities for students to become acquainted with local libraries and children’s librarians, who can be valuable resources in students’ work with young children. Students might also have to get library cards, and if this is problematic for any students, make sure that each pair has one person with a library card or the ability to get one.

The amount of time instructors allow for students to find their books, develop their posters, and bring them to class will depend on where this will fit into the course work. It
could be one week, two weeks, or whatever would fit into the flow of the design of the course. Posters could also be developed in class, which would mean that instructors might provide the posters and materials for their development, such as markers, collage materials, glue sticks, and scissors.

### Information Delivery

Before beginning, review the science foundations with students. Be sure they are very familiar with the strands and substrands.

Ask them to read the Introduction to the science domain of the *California Preschool Learning Foundations, Volume 3*. Emphasize the importance of understanding the knowledge base and concepts for Physical Sciences, Life Sciences, and Earth Sciences and the rationale for the Scientific Inquiry strand. They will need to be familiar with these in order to find picture books relating to this knowledge and these concepts.

### Active Learning

**Getting it started**

Let students know that they will be visiting a library to locate picture books that address the science foundations. Remind them that they can request help from a children’s librarian at a local library. As an alternative, many university and community college libraries have collections of children’s picture books and would be a good resource as well. Many libraries will have their own lists of picture books related to different topics, including the topics of the science domain, and librarians will either know of those lists or know of relevant books. Sharing a copy of the *California Preschool Learning Foundations, Volume 3* can provide helpful information to the librarian. It is important that students find books that address the strands and substrands and that will help children understand these concepts at a level that is age appropriate.

**Keeping it going**

Group students into pairs and let them know that they will be bringing books to class and designing and presenting a poster display for their books. Instructors can distribute the strands to each pair in any way that will work for the numbers of students in the class. Instructors could assign students to specific strands, but they will not find equal numbers of books for each strand. For example, Life Sciences would provide many more books than Earth Sciences. An alternative would be to ask each pair to find four books, with each representing one of the strands.

Explain to students that they will develop their poster either out of class or as part of a class session, whichever method the instructor.
selects. Each poster should highlight, in some way, the books that each pair has found and brought to class.

**Putting it together**
When students have had time to find their books and develop their posters, organize a poster gallery and gallery walk, followed by a class discussion. Ask students to review the books and posters and consider the following questions:

- Which foundations did they see represented? Remind students that they might not see them exactly as they are stated in the foundations but to think about experiences that might be examples of the knowledge base, concepts, or behaviors relative to the substrands or foundations.
- Did the books give them some ideas for science activities they can do in an early care and education setting? What were these?
- How could children who are dual language learners be included as you are reading these picture books to a group?

Instructors could ask students to record their responses to these questions as they walk the gallery, or wait until the discussion that follows their gallery walk. In any case, be alert to other questions that might have come up during their walk.

**Taking it further**
Ask each pair to write a two- or three-sentence description of what happens in each of their books, and identify strands and substrands that are addressed in their books. These could be collected, compiled, and given to students as a resource for their work with young children.

**Reflection**
Following the class discussion, ask students to reflect on their experience, using the following questions:

- What was surprising about looking for picture books related to the science domain?
• What did the posters suggest regarding the foundations that was a new idea?
• Which strand was most familiar? Which was least familiar? What does that suggest about your work with young children regarding the science foundations?
• What would you like to continue to learn about regarding using picture books to support children’s experiences with the science foundations?
• How could you continue to learn more about that?
Science

**Scientific Inquiry**
(skills and language related to science)
1.0 Observation and Investigation
2.0 Documentation and Communication

**Physical Sciences**
1.0 Properties and Characteristics of Nonliving Objects and Materials
2.0 Changes in Nonliving Objects and Materials
Science

Life Sciences
1.0 Properties and Characteristics of Living Things
2.0 Changes in Living Things

Earth Sciences
1.0 Properties and Characteristics of Earth Materials and Objects
2.0 Changes in the Earth

Science

Using Picture Books to Support the Science Foundations

• Which foundations were represented?
• Did the books give you some ideas for science activities that you could do in an early care and education setting? What were these?
• How could children who are dual language learners be included as you are reading these picture books to a group?
Science

Using Picture Books to Support the Science Foundations

- Write a 2–3 sentence description of what happens in each book.
- Identify and list the strands and substrands that are addressed in each book.

Science

- What was surprising about looking for picture books related to the science domain?
- What did the posters suggest regarding the foundations that was a new idea?
Science

• Which strand was most familiar? Which was least familiar?

• What does that suggest about your work with young children regarding the science foundations?

Science

• What would you like to continue to learn about regarding using picture books to support children’s experiences with the science foundations?

• How could you continue to learn more about that?
Science: Exploring the Relationship of the Science Domain to the Mathematics Domain and the Language and Literacy Domain

Focus Statement

Students explore the relationships between the foundations of the science domain with those of the mathematics and language and literacy domains by identifying key vocabulary that supports children’s understanding of the concepts in each domain and how vocabulary from one domain also facilitates children’s learning in other domains.

Curriculum Alignment Project (CAP) Student Learning Outcomes

The Curriculum Alignment Project’s (CAP) lower division eight courses and student learning outcomes are mapped onto each instructional guide learning experience. See Appendix A for the specific student learning outcomes, objectives, and examples of course content and topics for the courses listed below.

- Introduction to Curriculum
- Principle and Practices of Teaching Young Children
- Practicum-Field Experience

Instructional Methodologies

- Brainstorming
- Class discussion
- Creation of a visual representation
- Jigsaw reading
- Pairs or small groups
- Personal reflection
- Reflective discussion
California Early Childhood Educator Competency Areas to Consider

The Faculty Initiative Project will undertake a comprehensive process in the future to map the content of the instructional guides to the California Department of Education, Early Education and Support Division’s *California Early Childhood Educator Competencies*. The “Competency Areas to Consider” below are listed in this instructional guide as a preliminary exploration of how particular competency areas might be addressed through these learning experiences.

- Child Development and Learning
- Dual-Language Development
- Learning Environments and Curriculum
- Professionalism
Science:
Exploring the Relationship of the Science Domain to the Mathematics Domain and the Language and Literacy Domain

Before You Start

Volume 3 of the California Preschool Learning Foundations presents the final two domains of early learning and development produced by the California Department of Education as part of its early learning system. The foundations are the heart of this system (California Preschool Learning Foundations, Volume 3, p. xvi), and this volume provides a unique opportunity for students to become acquainted with all nine domains. There are four learning experiences in this instructional guide that, when used as a set, can provide opportunities for students to explore all nine domains and some of the ways in which they relate to one another. These experiences are not exhaustive cross-linking of all domains but provide opportunities for students to work with some selected relationships that strongly represent the integrated nature of early development. Each of these learning experiences focuses on one of the two domains in the California Preschool Learning Foundations, Volume 3 and a selected domain or set of domains from either the California Preschool Learning Foundations, Volume 1 or California Preschool Learning Foundations, Volume 2.

Depending on the emphasis of any particular course, any of these four learning experiences can be used independently of the others or all four can be used in sequence or combination. The following list of these four learning experiences describes the domains addressed in each one:


- Science domain, Learning Experience 11—“Exploring the Relationship off the Science Domain to the Mathematics Domain and the Language and Literacy Domain”—focuses on the relation of the science domain in Volume 3 to the
mathematics and language and literacy domains in Volume 1.

• Science domain, Learning Experience 12—“Exploring Relationships of the Science Domain to the Physical Development Domain and the Health Domain”— focuses on the relationship of the science domain to the domains of physical development and health in Volume 2.

Thus each of the nine domains is explored in relation to at least one other domain, and the domains in Volume 3 are highlighted. The specific domains explored in relation to one another are grouped in a way that highlights strong relationships between the strands of these domains. This is intended to support an understanding by students of how these various domains in the foundations are integrated in early learning and development.

Each of the four learning experiences guides students through domains using different instructional methodologies. These methodologies could be used as presented or used flexibly across several sets of domains. For example, the charting experience described in the history–social science Learning Experience 11 could be used for any number or combination of strands across any number of domains.

This learning experience will first focus on the relationship of the vocabulary of the mathematics domain to the vocabulary of three of the science strands: Physical Sciences, Life Sciences, and Earth Sciences. Then students will focus on the relation of the language and literacy domain to one of the Scientific Inquiry strands. It will be very important to point out to students that the relationships are not limited to the way in which they are explored here. All mathematics strands and all language and literacy strands are strongly related to all science strands but have been divided here only for purposes of guided exploration.

Handouts of the foundations for the science (Handout 1), mathematics (Handout 2), and language and literacy (Handout 3) domains are provided with this learning experience. Handout 4, “Key Vocabulary in Science and Mathematics,” is also included with this learning experience. Electronic versions of these handouts will be available when this instructional guide is online at www.wested.org/facultyinitiative.

Make sure that students have read through the Introduction to the science domain before beginning this experience (California Preschool Learning Foundations, Volume 3, pp 48–60). For this learning experience, the section relating to language and science (California Preschool Learning Foundations, Volume 3, pp 52–55) is especially important.
Active Learning

Getting it started
Organize students into pairs or groups of three. Make sure each group has a copy of the summary of the science foundations, which can be found in the publication (pp 108–112) or as Handout 1 with this learning experience.

Part 1.
Students will be working initially only with the strands of Physical Sciences, Life Sciences, and Earth Sciences. Each pair or group can work with all three of these strands, or instructors could assign one strand to each pair or group. Ask each pair or group of three to use the summary to develop a list of key vocabulary. These would be words that young children would need to know in order to describe, ask questions, respond to questions, predict, or record observations about things and events that are the content of each of these strands. For example, in the Physical Sciences strand, children would need to know words describing size (big, little), shape (round, square), weight (light, heavy), and sound (loud, quiet). These lists do not need to be exhaustive; the main point is to develop enough key vocabulary to be able to see that there is a strong relationship between the vocabulary of science and the vocabulary of mathematics, which is the next part of this experience.

Keeping it going
When students have developed their lists, ask them to turn to the summary of the mathematics domain, either on pages 189–192 of the California Preschool Learning Foundations, Volume 1 or the summary provided as Handout 2 with this learning experience.

Ask students to look through the mathematics strands. Give them some time to do this, so that they can develop some familiarity with the concepts and vocabulary. Again, each pair or group of three can look through all the strands or you can assign individual strands to individual pairs of groups.

Direct them to Handout 4 that accompanies this learning experience. Ask them to begin by placing in the box for each science strand the key vocabulary you find in the foundations for that strand. Ask them to then look across the mathematics strands and find similar vocabulary or concepts that relate to the science vocabulary.
Then ask them to discuss, in their small groups, how knowing key vocabulary relating to these three science strands will support and strengthen children’s development and learning in the mathematics strands. And how will mathematics vocabulary support learning and development in the science strands? These two questions are listed on Handout 4.

When they have had time to work across the two domains, reconvene as a whole group and discuss what they found as they worked through the vocabularies. They can share key points from their small group discussions of the two questions.

Then ask students to consider these questions:

- Where did you find similarities in the vocabulary of these two domains?
- What is a difference in how these similar key vocabularies are used in these two domains? Note to instructors—One difference might be that in the mathematics domain the vocabulary defines the concepts being learned, whereas in the science domain, the vocabulary enables ongoing exploration of areas of knowledge and understanding.

**Online Options**

Students could individually complete the handout and then post it online to compare with others or, if the class has document-sharing capability, students could jointly develop the vocabulary for the science and mathematics domains for instructor’s review.

Part 2.
Now ask students to go through a similar process using the science strand entitled Scientific Inquiry and the language and literacy domain.

First, ask them to develop a list of key skills in the Scientific Inquiry strand. Instructors might want to do this as a whole group, since the skills might not be as easily identified as vocabulary was identified in the other strands. A list of skills might end up looking like the foundations themselves, such as comparing and contrasting, describing, predicting, using measurement tools, recording observations, and sharing findings and explanations.
Then ask students to work in small groups and look through the strands and sub-strands of the language and literacy domain in Volume 1 of the *California Preschool Learning Foundations*. There are three strands and nine sub-strands, and instructors might want to divide these up for small group work.

The following question is suggested to guide the students’ work:

How would demonstrating the foundations (the knowledge and skills) in the language and literacy domain support the development of the skills found in the foundations in the Scientific Inquiry strand in the science domain?

**Putting it together**

Give students some time to work on developing their list of skills and thinking about the question and then ask them to share their explorations. They will probably find that the ability to engage in scientific inquiry is heavily dependent on language and literacy skills. Remind students that children can demonstrate the language and literacy skills with any language and in nonverbal ways. The use of alternate modes of communication should not limit any child’s opportunities to engage in scientific inquiry or develop understanding in any of the strands of the science domain.

**Reflection**

When students have finished their explorations and have a chance to discuss them as a whole class, ask them to reflect on their experience with the following questions:

- What discoveries did you make while you were doing this?
- Did some strands or domains have stronger relationships than others?
- What new ideas about early learning and development emerged?
- What more do you want to find out about regarding the domains you worked with? How could you get that information?

**Taking it further**

One way to further engage students with this material would be to ask students to develop a visual display of related vocabulary (and therefore related concepts) in the mathematics strands and three strands being explored in the science domain. This could be done as posters or as electronic displays using PowerPoint or an interactive whiteboard. Have students present their displays to the rest of the group, either individually or in a gallery context.
## Science

### Scientific Inquiry

### 1.0 Observation and Investigation

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Demonstrate curiosity and raise simple questions about objects and events in their environment.</td>
<td>1.1 Demonstrate curiosity and an increased ability to raise questions about objects and events in their environment.</td>
</tr>
<tr>
<td>1.2 Observe objects and events in the environment and describe them.</td>
<td>1.2 Observe objects and events in the environment and describe them in greater detail.</td>
</tr>
<tr>
<td>1.3 Begin to identify and use, with adult support, some observation and measurement tools.</td>
<td>1.3 Identify and use a greater variety of observation and measurement tools. May spontaneously use an appropriate tool, though may still need adult support.</td>
</tr>
<tr>
<td>1.4 Compare and contrast objects and events and begin to describe similarities and differences.</td>
<td>1.4 Compare and contrast objects and events and describe similarities and differences in greater detail.</td>
</tr>
<tr>
<td>1.5 Make predictions and check them, with adult support, through concrete experiences.</td>
<td>1.5 Demonstrate an increased ability to make predictions and check them (e.g., may make more complex predictions, offer ways to test predictions, and discuss why predictions were correct or incorrect).</td>
</tr>
<tr>
<td>1.6 Make inferences and form generalizations based on evidence.</td>
<td>1.6 Demonstrate an increased ability to make inferences and form generalizations based on evidence.</td>
</tr>
</tbody>
</table>

1. Other related scientific processes, such as classifying, ordering, and measuring, are addressed in the foundations for mathematics.

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## 2.0 Documentation and Communication

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Record observations or findings in various ways, with adult assistance, including</td>
<td>2.1 Record information more regularly and in greater detail in various ways, with adult</td>
</tr>
<tr>
<td>pictures, words (dictated to adults), charts, journals, models, and photos.</td>
<td>assistance, including pictures, words (dictated to adults), charts, journals, models,</td>
</tr>
<tr>
<td></td>
<td>photos, or by tallying and graphing information.</td>
</tr>
<tr>
<td>2.2 Share findings and explanations, which may be correct or incorrect, with or without</td>
<td>2.2 Share findings and explanations, which may be correct or incorrect, more spontaneously</td>
</tr>
<tr>
<td>adult prompting.</td>
<td>and with greater detail.</td>
</tr>
</tbody>
</table>

## Physical Sciences

### 1.0 Properties and Characteristics of Nonliving Objects and Materials

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Observe, investigate, and identify the characteristics and physical properties of</td>
<td>1.1 Demonstrate increased ability to observe, investigate, and describe in greater</td>
</tr>
<tr>
<td>objects and of solid and nonsolid materials (size, weight, shape, color, texture, and</td>
<td>detail the characteristics and physical properties of objects and of solid and nonsolid</td>
</tr>
<tr>
<td>sound).</td>
<td>materials (size, weight, shape, color, texture, and sound).</td>
</tr>
</tbody>
</table>

### 2.0 Changes in Nonliving Objects and Materials

| 2.1 Demonstrate awareness that objects and materials can change; explore and describe    | 2.1 Demonstrate an increased awareness that objects and materials can change in various   |
| changes in objects and materials (rearrangement of parts; change in color, shape,        | ways. Explore and describe in greater detail changes in objects and materials (rearrangement|
| texture, temperature).                                                                   | of parts; change in color, shape, texture, form, and temperature).                        |
### 2.0 Changes in Nonliving Objects and Materials (continued)

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2.2</strong> Observe and describe the motion of objects (in terms of speed, direction, the ways things move), and explore the effect of own actions (e.g., pushing, pulling, rolling, dropping) on making objects move.</td>
<td><strong>2.2</strong> Demonstrate an increased ability to observe and describe in greater detail the motion of objects (in terms of speed, direction, the ways things move), and to explore the effect of own actions on the motion of objects, including changes in speed and direction.</td>
</tr>
</tbody>
</table>

### Life Sciences

#### 1.0 Properties and Characteristics of Living Things

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.1</strong> Identify characteristics of a variety of animals and plants, including appearance (inside and outside) and behavior, and begin to categorize them.</td>
<td><strong>1.1</strong> Identify characteristics of a greater variety of animals and plants and demonstrate an increased ability to categorize them.</td>
</tr>
<tr>
<td><strong>1.2</strong> Begin to indicate knowledge of body parts and processes (e.g., eating, sleeping, breathing, walking) in humans and other animals.</td>
<td><strong>1.2</strong> Indicate greater knowledge of body parts and processes (e.g., eating, sleeping, breathing, walking) in humans and other animals.</td>
</tr>
<tr>
<td><strong>1.3</strong> Identify the habitats of people and familiar animals and plants in the environment and begin to realize that living things have habitats in different environments.</td>
<td><strong>1.3</strong> Recognize that living things have habitats in different environments suited to their unique needs.</td>
</tr>
<tr>
<td><strong>1.4</strong> Indicate knowledge of the difference between animate objects (animals, people) and inanimate objects. For example, expect animate objects to initiate movement and to have different insides than inanimate objects.</td>
<td><strong>1.4</strong> Indicate knowledge of the difference between animate and inanimate objects, providing greater detail, and recognize that only animals and plants undergo biological processes such as growth, illness, healing, and dying.</td>
</tr>
</tbody>
</table>

2. The knowledge of body parts is also addressed in the *California Preschool Foundations (Volume 2)* for health. In science, it also includes the knowledge of body processes. Knowledge of body parts is extended to those of humans and other animals.

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### 2.0 Changes in Living Things

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Observe and explore growth and changes in humans, animals, and plants and demonstrate an understanding that living things change over time in size and in other capacities as they grow.</td>
<td>2.1 Observe and explore growth in humans, animals, and plants and demonstrate an increased understanding that living things change as they grow and go through transformations related to the life cycle (for example, from a caterpillar to butterfly).</td>
</tr>
<tr>
<td>2.2 Recognize that animals and plants require care and begin to associate feeding and watering with the growth of humans, animals, and plants.</td>
<td>2.2 Develop a greater understanding of the basic needs of humans, animals, and plants (e.g., food, water, sunshine, shelter).</td>
</tr>
</tbody>
</table>

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## Earth Sciences

### 1.0 Properties and Characteristics of Earth Materials and Objects

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Investigate characteristics (size, weight, shape, color, texture) of earth materials such as sand, rocks, soil, water, and air.</td>
<td>1.1 Demonstrate increased ability to investigate and compare characteristics (size, weight, shape, color, texture) of earth materials such as sand, rocks, soil, water, and air.</td>
</tr>
</tbody>
</table>

### 2.0 Changes in the Earth

| 2.1 Observe and describe natural objects in the sky (sun, moon, stars, clouds) and how they appear to move and change. | 2.1 Demonstrate an increased ability to observe and describe natural objects in the sky and to notice patterns of movement and apparent changes in the sun and the moon. |
| 2.2 Notice and describe changes in weather. | 2.2 Demonstrate an increased ability to observe, describe, and discuss changes in weather. |
| 2.3 Begin to notice the effects of weather and seasonal changes on their own lives and on plants and animals. | 2.3 Demonstrate an increased ability to notice and describe the effects of weather and seasonal changes on their own lives and on plants and animals. |
| 2.4 Develop awareness of the importance of caring for and respecting the environment and participate in activities related to its care. | 2.4 Demonstrate an increased awareness and the ability to discuss in simple terms how to care for the environment, and participate in activities related to its care. |

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### Number Sense

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.0</strong> Children begin to understand numbers and quantities in their everyday environment.</td>
<td><strong>1.0</strong> Children expand their understanding of numbers and quantities in their everyday environment.</td>
</tr>
<tr>
<td><strong>1.1</strong> Recite numbers in order to ten with increasing accuracy.</td>
<td><strong>1.1</strong> Recite numbers in order to twenty with increasing accuracy.</td>
</tr>
<tr>
<td><strong>1.2</strong> Begin to recognize and name a few written numerals.</td>
<td><strong>1.2</strong> Recognize and know the name of some written numerals.</td>
</tr>
<tr>
<td><strong>1.3</strong> Identify, without counting, the number of objects in a collection of up to three objects (i.e., subitize).</td>
<td><strong>1.3</strong> Identify, without counting, the number of objects in a collection of up to four objects (i.e., subitize).</td>
</tr>
<tr>
<td><strong>1.4</strong> Count up to five objects, using one-to-one correspondence (one object for each number word) with increasing accuracy.</td>
<td><strong>1.4</strong> Count up to ten objects, using one-to-one correspondence (one object for each number word) with increasing accuracy.</td>
</tr>
<tr>
<td><strong>1.5</strong> Use the number name of the last object counted to answer the question, “How many...?”</td>
<td><strong>1.5</strong> Understand, when counting, that the number name of the last object counted represents the total number of objects in the group (i.e., cardinality).</td>
</tr>
<tr>
<td><strong>2.0</strong> Children begin to understand number relationships and operations in their everyday environment.</td>
<td><strong>2.0</strong> Children expand their understanding of number relationships and operations in their everyday environment.</td>
</tr>
<tr>
<td><strong>2.1</strong> Compare visually (with or without counting) two groups of objects that are obviously equal or nonequal and communicate, “more” or “same.”</td>
<td><strong>2.1</strong> Compare, by counting or matching, two groups of up to five objects and communicate, “more,” “same as,” or “fewer” (or “less”).</td>
</tr>
<tr>
<td><strong>2.2</strong> Understand that adding to (or taking away) one or more objects from a group will increase (or decrease) the number of objects in the group.</td>
<td><strong>2.2</strong> Understand that adding one or taking away one changes the number in a small group of objects by exactly one.</td>
</tr>
</tbody>
</table>
### Algebra and Functions (Classification and Patterning)

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2.3</strong> Understand that putting two groups of objects together will make a bigger group.</td>
<td><strong>2.3</strong> Understand that putting two groups of objects together will make a bigger group and that a group of objects can be taken apart into smaller groups.</td>
</tr>
<tr>
<td><strong>2.4</strong> Solve simple addition and subtraction problems nonverbally (and often verbally) with a very small number of objects (sums up to 4 or 5).</td>
<td><strong>2.4</strong> Solve simple addition and subtraction problems with a small number of objects (sums up to 10), usually by counting.</td>
</tr>
</tbody>
</table>
### Measurement

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.0</strong> Children begin to compare and order objects.</td>
<td><strong>1.0</strong> Children expand their understanding of comparing, ordering, and measuring objects.</td>
</tr>
<tr>
<td><strong>1.1</strong> Demonstrate awareness that objects can be compared by length, weight, or capacity, by noting gross differences, using words such as bigger, longer, heavier, or taller, or by placing objects side by side to compare length.</td>
<td><strong>1.1</strong> Compare two objects by length, weight, or capacity directly (e.g., putting objects side by side) or indirectly (e.g., using a third object).</td>
</tr>
<tr>
<td><strong>1.2</strong> Order three objects by size.</td>
<td><strong>1.2</strong> Order four or more objects by size.</td>
</tr>
<tr>
<td></td>
<td><strong>1.3</strong> Measure length using multiple duplicates of the same-size concrete units laid end to end.</td>
</tr>
</tbody>
</table>

### Geometry

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.0</strong> Children begin to identify and use common shapes in their everyday environment.</td>
<td><strong>1.0</strong> Children identify and use a variety of shapes in their everyday environment.</td>
</tr>
<tr>
<td><strong>1.1</strong> Identify simple two-dimensional shapes, such as a circle and square.</td>
<td><strong>1.1</strong> Identify, describe, and construct a variety of different shapes, including variations of a circle, triangle, rectangle, square, and other shapes.</td>
</tr>
<tr>
<td><strong>1.2</strong> Use individual shapes to represent different elements of a picture or design.</td>
<td><strong>1.2</strong> Combine different shapes to create a picture or design.</td>
</tr>
<tr>
<td><strong>2.0</strong> Children begin to understand positions in space.</td>
<td><strong>2.0</strong> Children expand their understanding of positions in space.</td>
</tr>
<tr>
<td><strong>2.1</strong> Identify positions of objects and people in space, such as in/on/under, up/down, and inside/outside.</td>
<td><strong>2.1</strong> Identify positions of objects and people in space, including in/on/under, up/down, inside/outside, beside/between, and in front/behind.</td>
</tr>
</tbody>
</table>

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### Mathematical Reasoning

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.0</strong> Children use mathematical thinking to solve problems that arise in their everyday environment.</td>
<td><strong>1.0</strong> Children expand the use of mathematical thinking to solve problems that arise in their everyday environment.</td>
</tr>
<tr>
<td><strong>1.1</strong> Begin to apply simple mathematical strategies to solve problems in their environment.</td>
<td><strong>1.1</strong> Identify and apply a variety of mathematical strategies to solve problems in their environment.</td>
</tr>
</tbody>
</table>

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## Language and Literacy

### Listening and Speaking

#### 1.0 Language Use and Conventions

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Use language to communicate with others in familiar social situations for a variety of basic purposes, including describing, requesting, commenting, acknowledging, greeting, and rejecting.</td>
<td>1.1 Use language to communicate with others in both familiar and unfamiliar social situations for a variety of basic and advanced purposes, including reasoning, predicting, problem solving, and seeking new information.</td>
</tr>
<tr>
<td>1.2 Speak clearly enough to be understood by familiar adults and children.</td>
<td>1.2 Speak clearly enough to be understood by both familiar and unfamiliar adults and children.</td>
</tr>
<tr>
<td>1.3 Use accepted language and style during communication with familiar adults and children.</td>
<td>1.3 Use accepted language and style during communication with both familiar and unfamiliar adults and children.</td>
</tr>
<tr>
<td>1.4 Use language to construct short narratives that are real or fictional.</td>
<td>1.4 Use language to construct extended narratives that are real or fictional.</td>
</tr>
</tbody>
</table>

#### 2.0 Vocabulary

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Understand and use accepted words for objects, actions, and attributes encountered frequently in both real and symbolic contexts.</td>
<td>2.1 Understand and use an increasing variety and specificity of accepted words for objects, actions, and attributes encountered in both real and symbolic contexts.</td>
</tr>
<tr>
<td>2.2 Understand and use accepted words for categories of objects encountered and used frequently in everyday life.</td>
<td>2.2 Understand and use accepted words for categories of objects encountered in everyday life.</td>
</tr>
<tr>
<td>2.3 Understand and use simple words that describe the relations between objects.</td>
<td>2.3 Understand and use both simple and complex words that describe the relations between objects.</td>
</tr>
</tbody>
</table>

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### 3.0 Grammar

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 Understand and use increasingly complex and longer sentences, including sentences that combine two phrases or two to three concepts to communicate ideas.</td>
<td>3.1 Understand and use increasingly complex and longer sentences, including sentences that combine two to three phrases or three to four concepts to communicate ideas.</td>
</tr>
<tr>
<td>3.2 Understand and typically use age-appropriate grammar, including accepted word forms, such as subject-verb agreement, progressive tense, regular past tense, regular plurals, pronouns, and possessives.</td>
<td>3.2 Understand and typically use age-appropriate grammar, including accepted word forms, such as subject-verb agreement, progressive tense, regular and irregular past tense, regular and irregular plurals, pronouns, and possessives.</td>
</tr>
</tbody>
</table>

### Reading

### 1.0 Concepts about Print

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Begin to display appropriate book-handling behaviors and begin to recognize print conventions.</td>
<td>1.1 Display appropriate book-handling behaviors and knowledge of print conventions.</td>
</tr>
<tr>
<td>1.2 Recognize print as something that can be read.</td>
<td>1.2 Understand that print is something that is read and has specific meaning.</td>
</tr>
</tbody>
</table>

### 2.0 Phonological Awareness

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Orally blend and delete words and syllables without the support of pictures or objects.</td>
<td>2.2 Orally blend the onsets, rimes, and phonemes of words and orally delete the onsets of words, with the support of pictures or objects.</td>
</tr>
</tbody>
</table>
### 3.0 Alphabets and Word/Print Recognition

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 Recognize the first letter of own name.</td>
<td>3.1 Recognize own name or other common words in print.</td>
</tr>
<tr>
<td>3.2 Match some letter names to their printed form.</td>
<td>3.2 Match more than half of uppercase letter names and more than half of lowercase letter names to their printed form.</td>
</tr>
<tr>
<td>3.3 Begin to recognize that letters have sounds.</td>
<td></td>
</tr>
</tbody>
</table>

### 4.0 Comprehension and Analysis of Age-Appropriate Text

| 4.1 Demonstrate knowledge of main characters or events in a familiar story (e.g., who, what, where) through answering questions (e.g., recall and simple inferencing), retelling, reenacting, or creating artwork. | 4.1 Demonstrate knowledge of details in a familiar story, including characters, events, and ordering of events through answering questions (particularly summarizing, predicting, and inferencing), retelling, reenacting, or creating artwork. |
| 4.2 Demonstrate knowledge from informational text through labeling, describing, playing, or creating artwork. | 4.2 Use information from informational text in a variety of ways, including describing, relating, categorizing, or comparing and contrasting. |

### 5.0 Literacy Interest and Response

| 5.1 Demonstrate enjoyment of literacy and literacy-related activities. | 5.1 Demonstrate, with increasing independence, enjoyment of literacy and literacy-related activities. |
| 5.2 Engage in routines associated with literacy activities. | 5.2 Engage in more complex routines associated with literacy activities. |

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### Writing

#### 1.0 Writing Strategies

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Experiment with grasp and body position using a variety of drawing and writing tools.</td>
<td>1.1 Adjust grasp and body position for increased control in drawing and writing.</td>
</tr>
<tr>
<td>1.2 Write using scribbles that are different from pictures.</td>
<td>1.2 Write letters or letter-like shapes to represent words or ideas.</td>
</tr>
<tr>
<td>1.3 Write marks to represent own name.</td>
<td>1.3 Write first name nearly correctly.</td>
</tr>
</tbody>
</table>

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Science:  
Key Vocabulary in Science and Mathematics

Begin by placing in the box for each science strand the key vocabulary you find in the foundations for that strand. Next look across the mathematics strands and find similar vocabulary or concepts that relate to the science vocabulary. Then be prepared to discuss these two questions:

1. How will knowing key vocabulary related to the three science strands support and strengthen children’s development and learning in the mathematics strands?
2. How will mathematics vocabulary support learning and development in the science strands?

<table>
<thead>
<tr>
<th>Physical Sciences</th>
<th>Number Sense</th>
<th>Algebra and Functions</th>
<th>Measurement</th>
<th>Geometry</th>
<th>Mathematical Reasoning</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Life Sciences</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Earth Sciences</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Science

Scientific Inquiry
(skills and language related to science)
1.0 Observation and Investigation
2.0 Documentation and Communication

Physical Sciences
1.0 Properties and Characteristics of Nonliving Objects and Materials
2.0 Changes in Nonliving Objects and Materials
Science

Life Sciences
1.0 Properties and Characteristics of Living Things
2.0 Changes in Living Things

Earth Sciences
1.0 Properties and Characteristics of Earth Materials and Objects
2.0 Changes in the Earth

Science

- Read through the summary of the science domain.
- Develop a list of key vocabulary that young children would need to know in order to describe, ask questions, respond to questions, predict, or record observations about things and events that are the content of each of these strands.
Science

Vocabulary in Science and Mathematics

<table>
<thead>
<tr>
<th>Number Sense</th>
<th>Algebra and Functions</th>
<th>Measurement</th>
<th>Geometry</th>
<th>Mathematical Reasoning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Sciences</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Life Sciences</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Earth Sciences</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

How does knowing key vocabulary relating to the science strands support and strengthen children’s development and learning in the mathematics strands?

How will mathematics vocabulary support learning and development in the science strands?
Science

Vocabulary in Science and Mathematics

- Where did you find similarities in the vocabulary of these two domains?
- What is a difference in how these similar key vocabularies are used in these two domains?

Science

- Develop a list of key skills from the Scientific Inquiry strand.
- Look through the strands and substrands of the language and literacy domain.
- How would achieving the foundations in the language and literacy domain support the achievement of the skills found in the foundations in the Scientific Inquiry strand in the science domain?
Science

• What discoveries did you make while you were doing this?

• Did some strands or domains have stronger relationships than others?

Science

• What new ideas about early learning and development emerged?

• What more do you want to find out about regarding the domains you worked with? How could you get that information?
Science:
Exploring Relationships of the Science Domain to the
Physical Development Domain and the Health Domain

Focus Statement

Students explore the relationships between the foundations of the science domain and those of the physical development and health domains by creating a visual representation showing how the behaviors demonstrated by children for the foundations in one of the science strands might relate to behaviors in a strand of the physical development or health domain.

Curriculum Alignment Project (CAP) Student Learning Outcomes

The Curriculum Alignment Project’s (CAP) lower division eight courses and student learning outcomes are mapped onto each instructional guide learning experience. See Appendix A for the specific student learning outcomes, objectives, and examples of course content and topics for the courses listed below.

- Child Growth and Development
- Health, Safety and Nutrition
- Practicum-Field Experience

Instructional Methodologies

- Brainstorming
- Class discussion
- Class presentation
- Creation of a visual representation
- Pairs or small groups
- Peer review and feedback
- Reflective discussion

California Early Childhood Educator Competency Areas to Consider

The Faculty Initiative Project will undertake a comprehensive process in the future to map the content of the instructional guides to the California Department of Education, Early Education and Support Division’s California Early Childhood Educator
Competencies. The “Competency Areas to Consider” below are listed in this instructional guide as a preliminary exploration of how particular competency areas might be addressed through these learning experiences.

- Child Development and Learning
- Special Needs and Inclusion
- Learning Environments and Curriculum
- Health, Safety, and Nutrition
- Professionalism
Science: Exploring Relationships of the Science Domain to the Physical Development Domain and the Health Domain

Before You Start

Volume 3 of the *California Preschool Learning Foundations* presents the final two domains of early learning and development produced by the California Department of Education as part of its early learning system. The foundations are the heart of this system (*California Preschool Learning Foundations, Volume 3*, p. xvi), and this volume provides a unique opportunity for students to become acquainted with all nine domains. There are four learning experiences in this instructional guide that, when used as a set, can provide opportunities for students to explore all nine domains and some of the ways in which they relate to one another. These experiences are not exhaustive cross-linking of all domains but provide opportunities to work with some selected relationships that strongly represent the integrated nature of early development. Each of these learning experiences focuses on one of the two domains in the *California Preschool Learning Foundations, Volume 3* and a domain or selected set of domains from either the *California Preschool Learning Foundations, Volume 1* or *California Preschool Learning Foundations, Volume 2*.

Depending on the emphasis of any particular course, any of these four learning experiences can be used independently of the others or all four can be used in sequence or combination. The following list of these four learning experiences describes the domains addressed in each one:


- **History–social science domain**, Learning Experience 12—“Discovering Relationships of the History–Social Science Domain to the Visual and Performing Arts Domain”—focuses on the relationship of the history–social science domain to the visual and performing arts domain in Volume 2.

- **Science domain**, Learning Experience 11—“Exploring the Relationship of the Science Domain to the Mathematics Domain and the Language and Literacy Domain”—focuses on the relationship of the science domain in Volume 3 to the mathematics and language and literacy domains in Volume 1.
• Science domain, Learning Experience 12—“Exploring Relationships of the Science Domain to the Physical Development Domain and the Health Domain”—focuses on the relationship of the science domain to the domains of physical development and health in Volume 2.

Thus each of the nine domains is explored in relation to at least one other domain, and the domains in Volume 3 are highlighted. The specific domains explored in relation to one another are grouped in a way that highlights strong relationships between the strands of these domains. This is intended to support an understanding by students of how these various domains in the foundations are integrated in early learning and development.

Each of the four learning experiences guides students through domains using different instructional methodologies. These methodologies could be used as presented or used flexibly across several sets of domains. For example the charting experience described in the history-social science Learning Experience 11 could be used for any number or combination of strands across any number of domains.

This learning experience explores relationships of the science domain to the domains of physical development and health in Volume 2. All strands in the physical development and health domains are not explored in this learning experience. In the science domain, the strand of Scientific Inquiry is not included here. This is an extremely important strand for students to know about, and they can explore this strand with Learning Experience 11 included in this instructional guide, entitled “Exploring the Relationship of the Science Domain to the Mathematics Domain and the Language and Literacy Domain.”

It will be easier for students to engage with the work in this learning experience if they are familiar with the science domain. If students have not had experience with the science domain, Learning Experience 3 in this instructional guide entitled “Piecing Together the Science Domain Content Puzzle” would be helpful in introducing them to the domain.

Handouts of the foundations for the science (Handout 1), physical development (Handout 2), and health (Handout 3) domains are provided with this learning experience. Electronic versions of these handouts will be available when this instructional guide is online at www.wested.org/facultyinitiative.

Information Delivery

Make sure that students have read through the Introduction to the science domain, pages 48–60 of the California Preschool Learning Foundations, Volume 3 before beginning this experience. They can do this in class or out. If they have had experience with this domain, students can also be led through a review of the science domain by reading the summary provided as Handout 1 with this learning experience or finding it in the publication on pages 108–112.
Active Learning

Getting it started
Organize students into pairs or groups of three. Make sure each group has a copy of the summary of the science foundations, either within the publication (pp 108–112) or the summary provided as Handout 1 with this learning experience. They will also need to look at the summaries of the physical development domain (Handout 2) and the health domain foundations (Handout 3) in Volume 2. These handouts are also included with this learning experience.

Let students know that they will be developing a visual representation of the relationships between some strands of the science domain in Volume 3 of the *California Preschool Learning Foundations* and the domains of physical development and health in Volume 2 of the *California Preschool Learning Foundations*. Instructors can organize students and strands of these two domains in any way the instructor chooses, but the suggestion in the following table is based on where content of the science domain and of the physical development or health domains might provide some potentially interesting relationships for students. They will have to think about the concepts behind the behaviors in these strands as well as the behaviors themselves, and they might need some time to develop their visual representations of these.

<table>
<thead>
<tr>
<th>Science Domain</th>
<th>Physical Development Domain and Health Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical Sciences</strong>&lt;br&gt;Substrand: Properties and Characteristics of Nonliving Objects and Materials</td>
<td><strong>Physical Development</strong>&lt;br&gt;Substrand: Fundamental Movement Skills</td>
</tr>
<tr>
<td><strong>Physical Sciences</strong>&lt;br&gt;Substrand: Changes in Nonliving Objects and Materials</td>
<td><strong>Physical Development</strong>&lt;br&gt;Substrand: Perceptual-Motor Skills and Movement Concepts</td>
</tr>
<tr>
<td><strong>Life Sciences</strong>&lt;br&gt;Substrand: Properties and Characteristics of Living Things</td>
<td><strong>Physical Development</strong>&lt;br&gt;Substrand: Active Physical Play</td>
</tr>
<tr>
<td><strong>Life Sciences</strong>&lt;br&gt;Substrand: Changes in Living Things</td>
<td>Health&lt;br&gt;Substrand: Health Habits</td>
</tr>
<tr>
<td><strong>Earth Sciences</strong>&lt;br&gt;Substrand: Properties and Characteristics of Earth Materials and Objects</td>
<td><strong>Physical Development</strong>&lt;br&gt;Substrand: Fundamental Movement Skills</td>
</tr>
<tr>
<td><strong>Earth Sciences</strong>&lt;br&gt;Substrand: Changes in the Earth</td>
<td>Health&lt;br&gt;Substrands: Safety and Nutrition</td>
</tr>
</tbody>
</table>
Keeping it going
Let students know that they are not looking for exact matches in the content but ways in which the foundations of several strands might play out in some behaviors typical of young children. The examples might be helpful to students here. Remind students that they need not represent everything in any strand or substrand, but they will need to spend time getting to know the strands with which they are working.

Suggest that they think about how we could observe a strand—for example, injury prevention—in a situation where children show an awareness of properties and characteristics of the earth. Encourage students to brainstorm and be creative and enjoy the exercise. And remind them that the main point of this exercise is to learn about the foundations!

Their visual representations can be two- or three-dimensional, pictorial, collage, or whatever they can create. Including words or phrases can sometimes be helpful.

Putting it together
After students have had some time to work on their creations, create a gallery situation where they can all view each other’s work. This might be on tabletops or around the walls of a classroom. As they view the work, ask them to carry writing materials and write a question to ask of each group about their work. When the viewing is done, convene the class as a whole group and have students ask each group the questions they have written. In responding, each group should be able to make some reference to the strands or foundations that they were working with.

Reflection
When students have finished their gallery walk and have a chance to discuss their observations as a whole class, ask them to reflect on their experience with the following questions:

• What discoveries did you make while you were doing this?
• Where were the greatest challenges? How did you overcome them?
• What new ideas about early learning and development emerged?
• What more do you want to find out about regarding the domains you worked with? How could you get that information?
### Science

**Scientific Inquiry**

#### 1.0 Observation and Investigation

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.1</strong> Demonstrate curiosity and raise simple questions about objects and events in their environment.</td>
<td><strong>1.1</strong> Demonstrate curiosity and an increased ability to raise questions about objects and events in their environment.</td>
</tr>
<tr>
<td><strong>1.2</strong> Observe objects and events in the environment and describe them.</td>
<td><strong>1.2</strong> Observe objects and events in the environment and describe them in greater detail.</td>
</tr>
<tr>
<td><strong>1.3</strong> Begin to identify and use, with adult support, some observation and measurement tools.</td>
<td><strong>1.3</strong> Identify and use a greater variety of observation and measurement tools. May spontaneously use an appropriate tool, though may still need adult support.</td>
</tr>
<tr>
<td><strong>1.4</strong> Compare and contrast objects and events and begin to describe similarities and differences.</td>
<td><strong>1.4</strong> Compare and contrast objects and events and describe similarities and differences in greater detail.</td>
</tr>
<tr>
<td><strong>1.5</strong> Make predictions and check them, with adult support, through concrete experiences.</td>
<td><strong>1.5</strong> Demonstrate an increased ability to make predictions and check them (e.g., may make more complex predictions, offer ways to test predictions, and discuss why predictions were correct or incorrect).</td>
</tr>
<tr>
<td><strong>1.6</strong> Make inferences and form generalizations based on evidence.</td>
<td><strong>1.6</strong> Demonstrate an increased ability to make inferences and form generalizations based on evidence.</td>
</tr>
</tbody>
</table>

1. Other related scientific processes, such as classifying, ordering, and measuring, are addressed in the foundations for mathematics.

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### 2.0 Documentation and Communication

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Record observations or findings in various ways, with adult assistance, including pictures, words (dictated to adults), charts, journals, models, and photos.</td>
<td>2.1 Record information more regularly and in greater detail in various ways, with adult assistance, including pictures, words (dictated to adults), charts, journals, models, photos, or by tallying and graphing information.</td>
</tr>
<tr>
<td>2.2 Share findings and explanations, which may be correct or incorrect, with or without adult prompting.</td>
<td>2.2 Share findings and explanations, which may be correct or incorrect, more spontaneously and with greater detail.</td>
</tr>
</tbody>
</table>

### Physical Sciences

#### 1.0 Properties and Characteristics of Nonliving Objects and Materials

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Observe, investigate, and identify the characteristics and physical properties of objects and of solid and nonsolid materials (size, weight, shape, color, texture, and sound).</td>
<td>1.1 Demonstrate increased ability to observe, investigate, and describe in greater detail the characteristics and physical properties of objects and of solid and nonsolid materials (size, weight, shape, color, texture, and sound).</td>
</tr>
</tbody>
</table>

#### 2.0 Changes in Nonliving Objects and Materials

| 2.1 Demonstrate awareness that objects and materials can change; explore and describe changes in objects and materials (rearrangement of parts; change in color, shape, texture, temperature). | 2.1 Demonstrate an increased awareness that objects and materials can change in various ways. Explore and describe in greater detail changes in objects and materials (rearrangement of parts; change in color, shape, texture, form, and temperature). |
2.0 Changes in Nonliving Objects and Materials (continued)

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2 Observe and describe the motion of objects (in terms of speed, direction, the ways things move), and explore the effect of own actions (e.g., pushing, pulling, rolling, dropping) on making objects move.</td>
<td>2.2 Demonstrate an increased ability to observe and describe in greater detail the motion of objects (in terms of speed, direction, the ways things move), and to explore the effect of own actions on the motion of objects, including changes in speed and direction.</td>
</tr>
</tbody>
</table>

Life Sciences

1.0 Properties and Characteristics of Living Things

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Identify characteristics of a variety of animals and plants, including appearance (inside and outside) and behavior, and begin to categorize them.</td>
<td>1.1 Identify characteristics of a greater variety of animals and plants and demonstrate an increased ability to categorize them.</td>
</tr>
<tr>
<td>1.2 Begin to indicate knowledge of body parts and processes (e.g., eating, sleeping, breathing, walking) in humans and other animals.</td>
<td>1.2 Indicate greater knowledge of body parts and processes (e.g., eating, sleeping, breathing, walking) in humans and other animals.</td>
</tr>
<tr>
<td>1.3 Identify the habitats of people and familiar animals and plants in the environment and begin to realize that living things have habitats in different environments.</td>
<td>1.3 Recognize that living things have habitats in different environments suited to their unique needs.</td>
</tr>
<tr>
<td>1.4 Indicate knowledge of the difference between animate objects (animals, people) and inanimate objects. For example, expect animate objects to initiate movement and to have different insides than inanimate objects.</td>
<td>1.4 Indicate knowledge of the difference between animate and inanimate objects, providing greater detail, and recognize that only animals and plants undergo biological processes such as growth, illness, healing, and dying.</td>
</tr>
</tbody>
</table>

2. The knowledge of body parts is also addressed in the California Preschool Foundations (Volume 2) for health. In science, it also includes the knowledge of body processes. Knowledge of body parts is extended to those of humans and other animals.

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## 2.0 Changes in Living Things

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Observe and explore growth and changes in humans, animals, and plants and demonstrate an understanding that living things change over time in size and in other capacities as they grow.</td>
<td>2.1 Observe and explore growth in humans, animals, and plants and demonstrate an increased understanding that living things change as they grow and go through transformations related to the life cycle (for example, from a caterpillar to butterfly).</td>
</tr>
<tr>
<td>2.2 Recognize that animals and plants require care and begin to associate feeding and watering with the growth of humans, animals, and plants.</td>
<td>2.2 Develop a greater understanding of the basic needs of humans, animals, and plants (e.g., food, water, sunshine, shelter).</td>
</tr>
</tbody>
</table>
# Earth Sciences

## 1.0 Properties and Characteristics of Earth Materials and Objects

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Investigate characteristics (size, weight, shape, color, texture) of earth materials such as sand, rocks, soil, water, and air.</td>
<td>1.1 Demonstrate increased ability to investigate and compare characteristics (size, weight, shape, color, texture) of earth materials such as sand, rocks, soil, water, and air.</td>
</tr>
</tbody>
</table>

## 2.0 Changes in the Earth

| 2.1 Observe and describe natural objects in the sky (sun, moon, stars, clouds) and how they appear to move and change. | 2.1 Demonstrate an increased ability to observe and describe natural objects in the sky and to notice patterns of movement and apparent changes in the sun and the moon. |
| 2.2 Notice and describe changes in weather. | 2.2 Demonstrate an increased ability to observe, describe, and discuss changes in weather. |
| 2.3 Begin to notice the effects of weather and seasonal changes on their own lives and on plants and animals. | 2.3 Demonstrate an increased ability to notice and describe the effects of weather and seasonal changes on their own lives and on plants and animals. |
| 2.4 Develop awareness of the importance of caring for and respecting the environment and participate in activities related to its care. | 2.4 Demonstrate an increased awareness and the ability to discuss in simple terms how to care for the environment, and participate in activities related to its care. |

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# Physical Development

## Fundamental Movement Skills

### 1.0 Balance

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Maintain balance while holding still; sometimes may need assistance.</td>
<td>1.1 Show increasing balance and control when holding still.</td>
</tr>
<tr>
<td>1.2 Maintain balance while in motion when moving from one position to another or when changing directions, though balance may not be completely stable.</td>
<td>1.2 Show increasing balance control while moving in different directions and when transitioning from one movement or position to another.</td>
</tr>
</tbody>
</table>

### 2.0 Locomotor Skills

<table>
<thead>
<tr>
<th>2.1 Walk with balance, not always stable, oppositional arm movements still developing, and relatively wide base of support (space between feet).</th>
<th>2.1 Walk with balance, oppositional arm movements, and relatively narrow base of support (space between feet).</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2 Run with short stride length and feet off the ground for a short period of time. May show inconsistent opposition of arms and legs.</td>
<td>2.2 Run with a longer stride length and each foot off the ground for a greater length of time. Opposition of arms and legs is more consistent.</td>
</tr>
<tr>
<td>2.3 Jump for height (up or down) and for distance with beginning competence.</td>
<td>2.3 Jump for height (up or down) and for distance with increasing competence. Uses arm swing to aid forward jump.</td>
</tr>
<tr>
<td>2.4 Begin to demonstrate a variety of locomotor skills, such as galloping, sliding, hopping, and leaping.</td>
<td>2.4 Demonstrate increasing ability and body coordination in a variety of locomotor skills, such as galloping, sliding, hopping, and leaping.</td>
</tr>
</tbody>
</table>
### 3.0 Manipulative Skills

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 Begin to show gross motor manipulative skills by using arms, hands, and feet, such as rolling a ball underhand, tossing underhand, bouncing, catching, striking, throwing overhand, and kicking.</td>
<td>3.1 Show gross motor manipulative skills by using arms, hands, and feet with increased coordination, such as rolling a ball underhand, tossing underhand, bouncing, catching, striking, throwing overhand, and kicking.</td>
</tr>
<tr>
<td>3.2 Begin to show fine motor manipulative skills using hands and arms such as in-hand manipulation, writing, cutting, and dressing.</td>
<td>3.2 Show increasing fine motor manipulative skills using hands and arms such as in-hand manipulation, writing, cutting, and dressing.</td>
</tr>
</tbody>
</table>

### Perceptual-Motor Skills and Movement Concepts

#### 1.0 Body Awareness

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Demonstrate knowledge of the names of body parts.</td>
<td>1.1 Demonstrate knowledge of an increasing number of body parts.</td>
</tr>
</tbody>
</table>

#### 2.0 Spatial Awareness

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Use own body as reference point when locating or relating to other people or objects in space.</td>
<td>2.1 Use own body, general space, and other people’s space when locating or relating to other people or objects in space.</td>
</tr>
</tbody>
</table>

#### 3.0 Directional Awareness

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 Distinguish movements that are up and down and to the side of the body (for example, understands “use that side, now the other side”).</td>
<td>3.1 Begin to understand and distinguish between the sides of the body.</td>
</tr>
<tr>
<td>3.2 Move forward and backward or up and down easily.</td>
<td>3.2 Can change directions quickly and accurately.</td>
</tr>
</tbody>
</table>
### 3.0 Directional Awareness (Continued)

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.3 Can place an object on top of or under something with some accuracy.</td>
<td>3.3 Can place an object or own body in front of, to the side, or behind something else with greater accuracy.</td>
</tr>
<tr>
<td>3.4 Use any two body parts together.</td>
<td>3.4 Demonstrate more precision and efficiency during two-handed fine motor activities.</td>
</tr>
</tbody>
</table>

### Active Physical Play

#### 1.0 Active Participation

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Initiate or engage in simple physical activities for a short to moderate period of time.</td>
<td>1.1 Initiate more complex physical activities for a sustained period of time.</td>
</tr>
</tbody>
</table>

#### 2.0 Cardiovascular Endurance

| 2.1 Engage in frequent bursts of active play that involves the heart, the lungs, and the vascular system. | 2.1 Engage in sustained active play of increasing intensity that involves the heart, the lungs, and the vascular system. |

#### 3.0 Muscular Strength, Muscular Endurance, and Flexibility

| 3.1 Engage in active play activities that enhance leg and arm strength, muscular endurance, and flexibility. | 3.1 Engage in increasing amounts of active play activities that enhance leg and arm strength, muscular endurance, and flexibility. |
# Health

## Health Habits

### 1.0 Basic Hygiene

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Demonstrate knowledge of some steps in the handwashing routine.</td>
<td>1.1 Demonstrate knowledge of more steps in the handwashing routine.</td>
</tr>
<tr>
<td>1.2 Practice health habits that prevent infectious diseases and infestations (such as lice) when appropriate, with adult support, instruction, and modeling.</td>
<td>1.2 Begin to independently practice health habits that prevent infectious disease and infestations (such as lice) when appropriate, with less adult support, instruction, and modeling.</td>
</tr>
</tbody>
</table>

### 2.0 Oral Health

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Demonstrate knowledge of some steps of the routine for brushing teeth, with adult supervision and instruction.</td>
<td>2.1 Demonstrate knowledge of more steps of the routine for brushing and when toothbrushing should be done, with less adult supervision.</td>
</tr>
</tbody>
</table>

### 3.0 Knowledge of Wellness

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 Identify a few internal body parts (most commonly the bones, brain, and heart) but may not understand their basic function.</td>
<td>3.1 Identify several different internal body parts and demonstrate a basic, limited knowledge of some functions.</td>
</tr>
<tr>
<td>3.2 Begin to understand that health-care providers try to keep people well and help them when they are not well.</td>
<td>3.2 Demonstrate greater understanding that health-care providers try to keep people well and help them when they are not well.</td>
</tr>
<tr>
<td>3.3 Communicate to an adult about not feeling well, feeling uncomfortable, or about a special health need, with varying specificity and reliability.</td>
<td>3.3 Communicate to an adult about not feeling well, feeling uncomfortable, or about a special health need, with more specificity and reliability.</td>
</tr>
</tbody>
</table>

### 4.0 Sun Safety

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1 Begin to practice sun-safe actions, with adult support and guidance.</td>
<td>4.1 Practice sun-safe actions with decreasing adult support and guidance.</td>
</tr>
</tbody>
</table>
### Safety

<table>
<thead>
<tr>
<th>1.0 Injury Prevention</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>At around 48 months of age</strong></td>
</tr>
<tr>
<td>1.1 Follow safety rules with adult support and prompting.</td>
</tr>
<tr>
<td>1.2 Begin to show ability to follow emergency routines after instruction and practice (for example, a fire drill or earthquake drill).</td>
</tr>
<tr>
<td>1.3 Show beginning ability to follow transportation and pedestrian safety rules with adult instruction and supervision.</td>
</tr>
</tbody>
</table>

### Nutrition

<table>
<thead>
<tr>
<th>1.0 Nutrition Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>At around 48 months of age</strong></td>
</tr>
<tr>
<td>1.1 Identify different kinds of foods.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2.0 Nutrition Choices</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Demonstrate a beginning understanding that eating a variety of food helps the body grow and be healthy, and choose from a variety of foods at mealtimes.</td>
</tr>
<tr>
<td>2.2 Indicate food preferences that reflect familial and cultural practices.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3.0 Self-Regulation of Eating</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 Indicate awareness of own hunger and fullness.</td>
</tr>
</tbody>
</table>
Science

**Scientific Inquiry**
(skills and language related to science)
1.0 Observation and Investigation
2.0 Documentation and Communication

**Physical Sciences**
1.0 Properties and Characteristics of Nonliving Objects and Materials
2.0 Changes in Nonliving Objects and Materials
Science

**Life Sciences**
1.0 Properties and Characteristics of Living Things
2.0 Changes in Living Things

**Earth Sciences**
1.0 Properties and Characteristics of Earth Materials and Objects
2.0 Changes in the Earth

- Read the summaries of the science foundations, the physical development domain, and the health domain.
- Develop a visual representation of the relationships between some strands of the science domain and the domains of physical development and health.
### Science

#### Science Domain | Physical Development Domain and Health Domain
---|---
**Physical Sciences**
Substrand: Properties and Characteristics of Nonliving Objects and Materials | **Physical Development**
Substrand: Fundamental Movement and Skills

**Physical Sciences**
Substrand: Changes in Nonliving Objects and Materials | **Physical Development**
Substrand: Perceptual-Motor Skills and Movement Concepts

**Life Sciences**
Substrand: Properties and Characteristics of Living Things | **Physical Development**
Substrand: Active Physical Play

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#### Science

#### Science Domain | Physical Development Domain and Health Domain
---|---
**Life Sciences**
Substrand: Changes in Living Things | **Health**
Substrand: Health Habits

**Earth Sciences**
Substrand: Properties and Characteristics of Earth Materials and Objects | **Physical Development**
Substrand: Fundamental Movement Skills

**Earth Sciences**
Substrand: Changes in the Earth | **Health**
Substrands: Safety and Nutrition
Science

- What discoveries did you make while you were doing this?

- Where were the greatest challenges? How did you overcome them?

Science

- What new ideas about early learning and development emerged?

- What more do you want to find out about regarding the domains you worked with? How could you get that information?
CDE/ECE Faculty Initiative Project Instructional Guide

*California Preschool Learning Foundations, Volume 3 (2012)*

Exploring the Overview of the *Alignment of the California Preschool Learning Foundations with Key Early Education Resources* Learning Experience
California Preschool Learning Foundations
Volume 3, Appendix B:
Exploring the Overview of the Alignment of the
California Preschool Learning Foundations with Key
Early Education Resources

Focus Statement

Students are provided opportunities to become acquainted with and/or explore more deeply the alignment of the California Preschool Learning Foundations with the California Infant/Toddler Learning and Development Foundations, California Kindergarten Content Standards, Common Core State Standards, and Head Start Child Development and Early Learning Framework.

Curriculum Alignment Project (CAP) Student Learning Outcomes

The Curriculum Alignment Project’s (CAP) lower division eight courses and student learning outcomes are mapped onto each instructional guide learning experience. See Appendix A for the specific student learning outcomes, objectives, and examples of course content and topics for the courses listed below.

- Introduction to Curriculum
- Principle and Practices of Teaching Young Children
- Practicum-Field Experience

Instructional Methodologies

- Class discussion
- Class presentation
- Creation of visual representation
- Lecture
- Pairs or small groups
- Panel/guest speaker
- Reflective discussion
California Early Childhood Educator Competency Areas to Consider

The Faculty Initiative Project will undertake a comprehensive process in the future to map the content of the instructional guides to the California Department of Education, Early Education and Support Division’s *California Early Childhood Educator Competencies*. The Competency Areas to Consider below are listed in this instructional guide as a preliminary exploration of how particular competency areas might be addressed through these learning experiences.

- Child Development and Learning
- Dual-Language Development
- Special Needs and Inclusion
- Learning Environments and Curriculum
- Health, Safety, and Nutrition
- Leadership in Early Childhood Education
- Professionalism
- Administration and Supervision
California Preschool Learning Foundations, Volume 3, Appendix B: Exploring the Overview of the Alignment of the California Preschool Learning Foundations with Key Early Education Resources

Before You Start

The California Preschool Learning Foundations, Volume 3, contains an appendix that addresses the alignment of the foundations with key early education resources (Appendix B, pp. 113–166). The appendix contains an overview of alignment work that the California Department of Education completed to respond to the following question: “How do the preschool learning foundations align with the infant/toddler learning and development foundations, the kindergarten content standards, the CCSS [Common Core State Standards], and the Head Start Learning Framework (California Preschool Learning Foundations, Volume 3, p. 114)?”

It is important to recognize that the appendix is an overview. The full alignment document can be found at http://www.cde.ca.gov/sp/cd/re/documents/psalignment.pdf. The full 218-page document can be viewed online or downloaded as a PDF document.

The overview of the alignment document in Volume 3 of the California Preschool Learning Foundations does not address any alignment at a level below the level of domains and strands. A description of the alignment at the level of the individual foundations is available in the full document.

The overview in Volume 3 first reviews the alignment of each domain of the preschool foundations to the other three related initiatives in California: Infant/Toddler Learning and Development Foundations, Common Core State Standards, and California Content Standards for Kindergarten. This alignment is presented on pages 117–160.

Keep in mind that alignment to the Common Core State Standards is available for only two domains of the preschool foundations: mathematics and language and literacy. Other domains are aligned with California Content Standards for Kindergarten. This alignment is presented in the tables in Appendix B of the California Preschool Learning Foundations, Volume 3, especially in Table 1 on page 115.

Then, a separate alignment between California preschool foundations and the Head Start Child Development and Early Learning Framework is covered on pages 161–165.

This learning experience is designed to support students in exploring what is in the overview of the alignment document in the California Preschool Learning Foundations,
Volume 3, Appendix B and to help them understand the relation of the foundations to other key early education resources. It is not designed as an in-depth exploration of the full-length alignment document.

It is recommended that faculty be familiar with, and have available, copies of the documents to which the preschool learning foundations are aligned. These resources would include the California Infant/Toddler Learning and Development Foundations, the Common Core State Standards, California Content Standards for Kindergarten and the Head Start Child Development and Early Learning Framework. All of these documents are available for viewing online or for download:

- **California Infant/Toddler Learning and Development Foundations**

- **Common Core State Standards**
  [http://www.cde.ca.gov/be/st/ss/](http://www.cde.ca.gov/be/st/ss/)

- **California Content Standards for Kindergarten**
  [http://www.cde.ca.gov/be/st/ss/](http://www.cde.ca.gov/be/st/ss/)

- **Head Start Child Development and Early Learning Framework** (2010 revised versions in English and Spanish used in the alignment document)

In addition, a version of the alignment with the Head Start frameworks as the base can be accessed at

This learning experience is divided into three parts. These three parts can be addressed singly, as a sequence, or in any combination that fits the students and their knowledge base, experience, and needs.

If instructors choose to provide their students with a brief introduction to the alignment overview, it can be done with Part I. If this is the only segment of this learning experience that will be used with students, it could also be a written assignment or done online.

Part II will support students in going deeper into specific domains of the foundations and exploring how they are aligned with other key resources and engaging students in some critical thinking regarding these alignments.

Part III will give students an opportunity to explore how the preschool foundations specifically relate to the Head Start framework.

The reflection questions that bring the learning experience to a close can be used after any or all parts.
Three handouts are provided with this learning experience. Handout 1 shows the cover or cover page of the California early education resources—the California Infant/Toddler Learning and Development Foundations, the California Preschool Learning Foundations Volumes 1 – 3, the California Common Core State Standards, and the California Kindergarten Content Standards. Handout 2 is a graphic of the Head Start Learning and Development Framework. Handout 3 is Table 1 from Appendix B of the California Preschool Learning Foundations, Volume 3, found on page 115. Electronic versions of these handouts will be available when this instructional guide is online at www.wested.org/facultyinitiative.

**Part I: Becoming acquainted with the alignment document**

Direct students to pages 113–117 of the California Preschool Learning Foundations, Volume 3. Introduce them to the alignment document and to the other resources addressed in it. Instructors may wish to show students Handout 1 and Handout 2, included with this learning experience, which provide a visual orientation to the resources.

Much of the information in the first paragraphs of the “Before You Start” section of this learning experience can be used for this purpose, especially the following three paragraphs:

The overview of the alignment document in Volume 3 of the California Preschool Learning Foundations first reviews the alignment of each domain of the preschool foundations to the other three initiatives in California: Infant Learning and Development Foundations, Common Core State Standards, and California Content Standards for Kindergarten. This alignment is done on pages 117 through 160.

Keep in mind that alignment to the Common Core State Standards is available for only two domains of the preschool foundations: mathematics and language and literacy. Other domains are aligned with California Content Standards for Kindergarten. This alignment is presented in a clear way in the tables in the Appendix B of the California Preschool Learning Foundations, Volume 3, especially in Table 1 on page 115.

Then, a separate alignment between California preschool foundations and the Head Start Child Development and Early Learning Framework is covered on pages 161–165.

Emphasize that the alignment lets us know how California’s research-based preschool foundations are consistent with other
systems of learning and development in the early years and support *California’s Kindergarten Content Standards*.

The alignment provides opportunities to see that California’s foundations

- are related to other initiatives across the nation,
- share the perspective of other systems about early learning and development, and
- link us to broader contexts in the nation’s efforts relating to early learning and development.

Ask students to read through pages 113 up to the last paragraph on 117 of Appendix B of the *California Preschool Learning Foundations, Volume 3*, and think of at least one question that they have about what they have read.

Also ask them to look at Handout 3 or Table 1 on page 115 and think of at least one thing they learn by looking at the table.

Give them some time to do this, and then ask them to report their questions and statements to the whole group. Individuals could make oral statements to the whole group, or each individual could report to one other individual and they could report orally as a pair. If the decision is made to further engage students in exploring the overview of the alignment document, proceed to Part II.

**Part II: Deeper engagement with the alignment document**

Ask students to look at Handout 3 or Table 1 on page 115 of Appendix B of the *California Preschool Learning Foundations, Volume 3*. This table summarizes the alignment of each of the nine domains of the preschool learning foundations with three other key California resources.

Organize students into pairs. Assign at least one domain to each pair. Depending on the number of student pairs, instructors might have to assign more than one domain to each pair or assign each domain to more than one pair. Ask each pair to work on the following questions:

- Where do you see strong similarities or differences across the resources?
- Why do you suppose this is the case for your assigned domain(s)? For example, are there some reasons why one resource might emphasize particular skills and understandings and another one not do so?
• What are some advantages to the field of early care and education in California of having the preschool learning foundations aligned with the other three resource documents for this domain?
• What might be some cautions in looking across the resource documents?
• How does this continuum help us understand children’s development from birth to five in this domain?
• How does this alignment support children’s optimal development in preparation for successful experiences in kindergarten and beyond?

These questions can be addressed in a number of ways depending on the knowledge and experience of students, time available, and the focus of the particular course in which this is being presented.

• Pairs can work on the questions and report orally to the whole group.
• Responses to the questions could be organized on a whiteboard, large chart paper, or other highly visible media, and responses could then be compared across domains and/or across pairs’ interpretations.
• Students could develop poster presentations that would highlight their findings and include responses to the questions.
• The questions could also be used for a panel discussion or as an assignment for individual interviews, with local administrators and/or center directors as a panel of interviewees. Additional questions could be developed in class.
• Each pair can team up with another pair and discuss similarities and differences in the alignments relating to their domains.

After students present their findings to the whole class, in whatever format has been chosen, move to Part III or to the questions for reflection that follow Part III.

Part III: Alignment of the preschool learning foundations with the Head Start framework

The last two columns in Handout 3 or Table 1 on page 115 of Appendix B of the California Preschool Learning Foundations, Volume 3 indicate how the Head Start Child Development and Early Learning Framework aligns with California’s preschool learning foundations. Direct students’ attention to those columns and emphasize that Head Start is included in the alignment.
because it is an important national program for young children. It is important to recognize the consistency between the two programs.

As stated in bold on page 162 in the *California Preschool Learning Foundations, Volume 3*, the “alignment shows the ways in which these two sources correspond in content and share similar goals for children in all areas of learning and development.”

Remind students that Head Start’s framework is aligned with the California preschool foundations that describe what children will achieve with optimal support at **48 months**, which is the midpoint of the age range represented in the Head Start framework.

Also direct students to Table 14, page 164 of the *California Preschool Learning Foundations, Volume 3*, to see how the organization of the two resources is similar but with some differences. Table 13, on page 163, shows how similar the domains are in the two documents and also where there are additional domains in the Head Start framework. Within those additional domains, there is content that corresponds to content in California’s preschool foundations but might be placed differently in the organization of the Head Start framework. The main point to emphasize is that there is great similarity and, even when something might have a slightly different emphasis or location in the documents, the overall correspondence is very strong.

Let students know that they will be looking closer at this alignment. They will use the tables in Appendix B of the *California Preschool Learning Foundations, Volume 3*, on pages 119–160 to explore the alignment of the preschool foundations with the Head Start framework. There is a table for each domain, and the preschool foundations are in the middle column of each table.

Here are the page numbers for the relevant tables:

- Social-Emotional Development: pages 119–120
- Language and Literacy: pages 123–124
- English Language Development: pages 130–131
- Mathematics: pages 134–136
- Visual and Performing Arts: pages 142–144
- Physical Development: pages 147–148
- Health: pages 151–152
- History–Social Science: pages 155–156
- Science: pages 159–160
Note that there are additional tables for language and literacy and mathematics because they are also aligned with common core standards, which none of the other domains are.

Assign students to one domain of the foundations. This exercise will work better in pairs or small groups, because students will have to make decisions that will be helped by discussion with their peers. Have students find the table for their assigned domain. Handout 2 provided with this learning experience presents a graphic of the Head Start framework. For their assigned domain in the preschool foundations, ask students to find the domain elements in the framework that correspond to strands and substrands in the foundations. If they do not immediately find the correspondence in the domains with the same name, ask them to look in other domains of the framework. Handout 3 or Table 1, on page 115 in Appendix B of the *California Preschool Learning Foundations, Volume 3* should help them find as many matches as they can.

Ask students to note where there are direct correspondences between the two documents and where strands, substrands, or domain elements might be located in different domains. As they do this, ask them to consider these two questions:

- Why might there be these differences?
- What might be some advantages to the field of early care and education in California of having the preschool learning foundations aligned with the Head Start framework?

When they have had some time to work on their domains, reconvene the whole group and ask for their responses to the two questions.

**Reflection**

**Questions for Reflection**
Following any of the three parts of this learning experience, these questions can be used for reflection:

- What stands out to you about these alignments?
- What does this alignment document suggest about the field of early care and education?
- How will this exploration of the alignment document affect your work in the field of early care and education?
- What more would you like to know about the resources other than the preschool foundations?
- How can you find out more about them?
California Early Education Resources Visual
The Alignment of
the California Preschool Learning Foundations
with Key Early Education Resources

California Infant/Toddler Learning and Development Foundations
California Content Standards
Common Core State Standards
Head Start Child Development and Early Learning Framework
The Head Start Child Development and Early Learning Framework Cover Page

THE HEAD START CHILD DEVELOPMENT AND EARLY LEARNING FRAMEWORK
Promoting Positive Outcomes in Early Childhood Programs Serving Children 3-5 Years Old

U.S. Department of Health and Human Services Administration for Children and Families Office of Head Start

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The Head Start Child Development and Early Learning Framework Graphic
Table 1

Overview Alignment of the Domains in the California Preschool Learning Foundations with Domains in Key Early Education Resources

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California Preschool Learning Foundations

Alignment Document Resources

California Infant/Toddler Learning and Development Foundations

Common Core State Standards
http://www.cde.ca.gov/be/st/ss/
California Preschool Learning Foundations

Alignment Document Resources

California Content Standards for Kindergarten
http://www.cde.ca.gov/be/st/ss/

Head Start Child Development and Early Learning Framework (2010, revised)

The alignment shows how California’s research-based preschool foundations:
• Are consistent with other systems of learning and development in the early years.
• Support California’s Kindergarten Content Standards.
• Are related to other initiatives across the nation.
California Preschool Learning Foundations

Overview of the Alignment:

- Read page 113 to the last paragraph on page 117 of Appendix B.
- Think of at least one question about what you have read.
- Look at Table 1 on page 115.
- Identify one thing you learned.
California Preschool Learning Foundations

- Where do you see strong similarities or differences across the resources?
- Why do you suppose this is the case for your assigned domain(s)?
- Are there some reasons why one resource might emphasize particular skills and understandings and another one not do so?

What are some advantages to the field of early care and education in California of having the preschool learning foundations aligned with the other resource documents for this domain?

- What might be some cautions in looking across the resource documents?
California Preschool Learning Foundations

- How does this continuum help us understand children’s development from birth to five in this domain?
- How does this alignment support children’s optimal development in preparation for successful experiences in kindergarten and beyond?

California Preschool Learning Foundations

Alignment with the Head Start Framework

- Social-Emotional Development: pp. 119–120
- Language and Literacy: pp. 123–124
- English Language Development: pp. 130–131
- Visual and Performing Arts: pp. 142–144
California Preschool Learning Foundations

Alignment with the Head Start Framework

- Physical Development: pp. 147–148
- Health: pp. 151–152
- History–Social Science: pp. 155–156
- Science: pp.159–160

Where are there direct correspondences between the two documents?

Are there areas where strands, substrands, or domain elements are located in different domains?
**California Preschool Learning Foundations**

- What stands out about the alignments?
- What does this alignment document suggest about the field of early care and education?

**California Preschool Learning Foundations**

- How will this exploration affect your work in early care and education?
- What more would you like to know about the resources?
- How can you find out more about them?
Instructional Methodologies Definitions

Instructional Methodologies Definitions for the Instructional Guide for the California Preschool Learning Foundations, Volume 3

In this instructional guide, a variety of instructional methodologies have been suggested across all learning experiences. The intention is to provide instructors with access to diverse instructional methodologies that will enrich the experiences of their students and also support meeting program or college requirements for engaging students in a variety of methodologies. In the preview page(s) for each learning experience, the instructional methodologies that are used during that learning experience are listed. These methodologies are indexed in the Instructional Methodologies Index, so that instructors can make decisions based on which methodologies they prefer to use with their students. The following list provides working definitions for each of the methodologies referred to in the instructional guide. These working definitions provide instructors with an understanding of what is meant in this instructional guide by each term. They are not intended as definitive or exhaustive and refer only to the way in which they are used in this instructional guide.

Book review
Students are asked to indicate, in writing, how well they understood the contents of a book, how they think about it, and possibly how it connects to their work and/or experience.

Brainstorming
Students generate thoughts or ideas within a group without judgment as to the merits of what is generated.

Categorizing
Students put objects, thoughts, ideas, or concepts into groups based on overarching themes, theories, frameworks, likenesses, or differences.

Class discussion
All students participate in sharing of ideas/points of view, asking questions, and responding to others. This is often guided by an initial instructional question or prompt.

Class presentation
An individual student or small or larger group of students shares, performs, or presents material or a project that is related to an assigned or chosen topic.

Conversation grid
Students use a grid as a basis to facilitate discussion and learning. The conversation grid can be used to record notes, record answers, and/or raise additional questions.
Creation of a visual representation
Students develop a way to visually show a specific idea or concept. This can be a chart, table, graphic, poster, PowerPoint presentation, sculpture, collage, video, diorama, or any other medium that visually represents a concept, theory, practice, or idea.

Development of a resource tool
Students create a collection of relevant resources and/or information relating to a specific topic to be shared and used as a resource for other teachers or students.

Game
Students participate in interactive playful activities—focused on specific content or learning outcomes—that facilitate students’ exploration of a topic and/or skill.

Interview
Students conduct a question-and-answer session with a content expert, such as an early care and education professional or parent.

Jigsaw reading
Pairs or small groups of students are given sections of an article or text chapter to read and then find a creative and meaningful way to share the content with their peers.

Lecture
Instructors present an organized verbal presentation of ideas and/or information related to a specific topic. A PowerPoint presentation or other forms of visual support may accompany this.

Literature review
Students explore what a variety of authors have to say about a topic or question that is either selected by the student or assigned by the faculty.

Notetaking outline or guide
Students are provided with a form that supports their focus on the key points covered. This may be a form with the key points listed along with spaces for students to add information gained from the lecture, readings, or discussion or a form on which students list key points and add the information.

Observations
Students are asked to actively look at, listen to, and think about something, such as a classroom, child/ren, or teacher-child interactions. As observers, they do not participate in the setting or interfere with those around them. Observations may be conducted via video or in actual settings.

Pairs or small groups
Students are organized into pairs or groups of three to five for the purpose of completing a task such as having a discussion, solving a problem, preparing and implementing a presentation, and/or creating a resource or visual display.
Panel/guest speaker
Content experts come to class to share their knowledge and experiences on topics related to course content.

Peer review and feedback
Other individuals with similar characteristics—such as class members, co-teachers, or parents—review and share thoughts, identify strengths, and suggest areas of improvement with the peer member about his/her work, project, or presentation.

Personal reflection
An individual student or group of students engages in remembering details and thinking about an occurrence or experience. This requires one to consider one’s own role, behaviors, thoughts, and/or feelings in a particular situation or experience, as well as how one might apply the knowledge and understanding from the reflection to a new situation in the future.

Photo observation
Students explore a photograph, usually used to illustrate a concept or idea or to document an exercise or activity.

Problem solving
Students work on a solution to one or a series of tasks, questions, or problems. Problem solving may be done individually or as a group or class.

Reflective discussion
Following a learning experience, students engage in a discussion or talk about details and think about an event or experience that has occurred. The process requires students to consider their own role, behaviors, thoughts, and feelings in a particular situation or experience, as well as how one might apply the knowledge and understanding from the reflection to a new situation in the future. A reflective discussion might be facilitated by questions or prompts to guide and encourage participants to actively participate in reflection.

Role playing
Students take on a role in an activity and act it out.

Short paper or report
Students write a short paper that focuses on a specific topic or question.

Video observation
Students observe video for the purposes of documentation, understanding, and discussion.
Instructional Methodologies Index

Instructional Methodologies Indexed with the Instructional Guide for the California Preschool Learning Foundations, Volume 3

Each learning experience is written to include a variety of instructional methodologies. This is intended to provide varied learning experiences for students as they encounter the preschool learning foundations. It also provides another variable for faculty to use in deciding which learning experiences will best suit the needs of their students and programs.

In this instructional guide, these methodologies are identified for each learning experience on its preview page(s). The instructional methodologies and are also indexed so that faculty can get an overview of which methodologies are used across all domains and learning experiences.

To locate page numbers for each learning experience listed in the following index, refer to the instructional guide Table of Contents.
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DRAFT July 1, 2014 – Instructional Methodologies Indexed with the Instructional Guide
CDE/Early Education and Support Division (formerly CD) and WestEd Center for Child and Family Studies
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### Instructional Methodologies Indexed with the Instructional Guide for the California Preschool Learning Foundations, Volume 3

<table>
<thead>
<tr>
<th></th>
<th>History–Social Science Domain</th>
<th>Science Domain</th>
<th>Exploring the Overview of the Alignment Document</th>
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</thead>
</table>
| **Personal Reflection** | • Learning Experience 1  
• Learning Experience 2  
• Learning Experience 6  
• Learning Experience 7  
• Learning Experience 8  
• Learning Experience 10 | • Learning Experience 4  
• Learning Experience 6  
• Learning Experience 7  
• Learning Experience 8  
• Learning Experience 10  
• Learning Experience 11 | |
| **Problem Solving**   | • Learning Experience 3  
• Learning Experience 11 | • Learning Experience 2  
• Learning Experience 3 | |
| **Reflective Discussion** | • Learning Experience 1  
• Learning Experience 2  
• Learning Experience 3  
• Learning Experience 4  
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• Learning Experience 10  
• Learning Experience 11  
• Learning Experience 12 | • Learning Experience 2  
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• Learning Experience 8  
• Learning Experience 9  
• Learning Experience 10  
• Learning Experience 11  
• Learning Experience 12 | • Exploring the Overview of the Alignment Learning Experience |
| **Role Playing**      |                             | • Learning Experience 4 | |
| **Short Paper or Report** | • Learning Experience 5  
• Learning Experience 6  
• Learning Experience 8  
• Learning Experience 10 | • Learning Experience 4  
• Learning Experience 6 | |

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Student Learning Outcomes Index

Student Learning Outcomes and CAP Lower Division Eight Courses Mapped onto the Instructional Guide for the California Preschool Learning Foundations, Volume 3

To support faculty in deciding how and where they can best use the California Preschool Learning Foundations, Volume 3 in their course work or across their program, the Student Learning Outcomes (SLOs) developed by the Curriculum Alignment Project (CAP) for the eight core lower division early childhood courses have been mapped onto the learning experiences for each domain in this instructional guide. Each Learning Experience Preview Page provides course suggestions for instructor consideration.

More information about the Curriculum Alignment Project can be found on its website: http://www.childdevelopment.org/cs/cdgc/print/htdocs/services_cap.htm.

Appendix A is a listing of the suggested CAP lower division eight courses for all learning experiences in this instructional guide with the addition of the student learning outcomes, objectives, and examples of course content and topics. These SLOs are organized by the CAP core lower division early childhood courses.

This is not an exhaustive list, and faculty might find ways to use the learning experiences to address SLOs by means other than what has been indexed. Working through these selected learning experiences does not guarantee the achievement of any student learning outcome or objective; it is understood that students achieve student outcomes through repeated engagement with information and experiences that build competence.

To locate page numbers for each learning experience listed in the following index, refer to the Instructional Guide Table of Contents.

California State University and University of California

The Curriculum Alignment Project (CAP) course and student learning outcomes (SLO) mapping with this instructional guide is done with the understanding that not all institutions will use these particular SLOs or objectives. This is particularly true for faculty at the California State University (CSU) and University of California (UC) campuses. The SLOs do provide learning outcomes that can be used selectively or with adaptations for courses at the CSU and UC campuses and indicate what can be accomplished by students through using the key topic learning experiences in this instructional guide.
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<th>Curriculum Alignment Project’s (CAP) Lower Division Eight Courses and Student Learning Outcomes (Revised February 2012)</th>
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| Describe major developmental milestones for children from conception through adolescence in the areas of physical, psychosocial, cognitive, and language development. | • Learning Experience 2  
• Learning Experience 3  
• Learning Experience 4  
• Learning Experience 5  
• Learning Experience 9 |
| Identify cultural, economic, political, historical contexts that affect children’s development. | • Learning Experience 1  
• Learning Experience 3  
• Learning Experience 6  
• Learning Experience 7  
• Learning Experience 8 |
| Identify and compare major theoretical frameworks related to the study of human development. | • Learning Experience 11  
• Learning Experience 12 |
| Apply developmental theory to child observations, surveys, and/or interviews using investigative research methodologies. | • Learning Experience 9 |
| Differentiate characteristics of typical and atypical development. | |
| Additional Specific CAP Objectives and Course Content/Topics – See Appendix A | |

**Note to faculty:** See Appendix A for a detailed list of the CAP Student Learning Outcomes, Objectives, and Course Content/Topics indicated for this instructional guide’s domains and learning experiences.
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| Analyze theories of socialization that address the interrelationship of child, family and community. | • Learning Experience 1  
• Learning Experience 2  
• Learning Experience 4  
• Learning Experience 6  
• Learning Experience 7  
• Learning Experience 8 |
| Assess the impact of educational, political, and socioeconomic factors on children and families. | |
| Describe social issues, changes, and transitions that affect children, families, schools, and communities. | • Learning Experience 1  
• Learning Experience 2  
• Learning Experience 6 |
| Describe effective strategies that empower families and encourage family involvement in children’s development. | • Learning Experience 4  
• Learning Experience 7  
• Learning Experience 8  
• Learning Experience 10 |
| Identify and evaluate community support services and agencies available to families and children. | • Learning Experience 2  
• Learning Experience 8 |
| Analyze one’s own values, goals and sense of self as related to family history and life experiences, assessing how this impacts relationships with children and families. | • Learning Experience 2  
• Learning Experience 3  
• Learning Experience 6  
• Learning Experience 8 |
| Additional Specific CAP Objectives and Course Content/Topics – See Appendix A | |

Faculty Initiative Project Instructional Guide for the California Preschool Learning Foundations, Volume 3  
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Course: Introduction to Curriculum

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| Recognize developmentally appropriate teaching strategies and apply them in supervised settings for young children. | • Learning Experience 3  
• Learning Experience 10 |
| Demonstrate an understanding of the many aspects of the teachers’ role in early childhood programs. | • Learning Experience 4  
• Learning Experience 8  
• Learning Experience 10 |
| Identify play-based curriculum models and approaches, standards for early learning, and indicators of quality. | • Learning Experience 5 |
| Use the ongoing cycle of curriculum development to plan, implement, and evaluate early childhood activities and environments. | • Learning Experience 9 |
| Additional Specific CAP Objectives and Course Content/Topics – See Appendix A |
Course: Principles and Practices of Teaching Young Children

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| Interpret best and promising teaching and care practices as defined within the field of early care and education’s history, range of delivery systems, program types and philosophies and ethical standards. | • Learning Experience 5  
• Learning Experience 10 |
| Develop one’s teaching philosophy and professional goals. | • Learning Experience 6 |
| Assess early childhood settings, curriculum, and teaching strategies utilizing indicators of quality early childhood practice that support all children including those with diverse characteristics and their families. | • Learning Experience 7  
• Learning Experience 8 |
| Examine the value of play as a vehicle for developing skills, knowledge, dispositions, and strengthening relationships among young children. | |
| Examine a variety of guidance and interaction strategies to increase children’s social competence and promote a caring classroom community. | • Learning Experience 3  
• Learning Experience 4  
• Learning Experience 6  
• Learning Experience 8 |
| Analyze the relationship between observation, planning, implementation and assessment in developing effective teaching strategies and positive learning and development. | • Learning Experience 9 |
| Additional Specific CAP Objectives and Course Content/Topics – See Appendix A | |
## Course: Observation and Assessment

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<td>Compare the purpose, value and use of formal and informal observation and assessment strategies.</td>
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<td>Evaluate the characteristics, strengths and limitations of common assessment tools.</td>
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<td>Complete systematic observations using a variety of methods of data collection to assess the impact of the environment, interactions, and curriculum on children’s development and behavior.</td>
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| Identify the role of partnerships with families and other professionals in utilizing interpretations of observational data to inform teaching practices. | • Learning Experience 7  
• Learning Experience 8 |
| Additional Specific CAP Objectives and Course Content/Topics – See Appendix A | |
Course: Health, Safety and Nutrition

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**Course: Health, Safety and Nutrition**

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**Assess strategies to maximize the mental and physical health of children and adults in accordance with culturally, linguistic and developmentally sound practice.**

- Learning Experience 6

**Identify health, safety, and environmental risks in children’s programs.**

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**Analyze the nutritional needs of children at various ages and evaluate the relationship between healthy development and nutrition.**

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</table>

**Evaluate regulations, standards, policies and procedures related to health, safety, and nutrition in support of young children, teachers and families.**

- Learning Experience 4
- Learning Experience 6
- Learning Experience 7

**Discuss the value of collaboration with families and the community.**

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Course: Teaching in a Diverse Society

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<td>Critique the multiple societal impacts on young children’s social identity.</td>
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<td>Analyze various aspects of children’s experience as members of families targeted by social bias considering the significant role of education in reinforcing or contradicting such experiences.</td>
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<td>Critically assess the components of linguistically and culturally relevant, inclusive, age-appropriate, anti-bias approaches in promoting optimum learning and development.</td>
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<td>Evaluate the impact of personal experiences and social identity on teaching effectiveness.</td>
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## Course: Practicum-Field Experience

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<td><strong>Integrate understanding of children’s development and needs to create and maintain healthy, safe, respectful, supportive and challenging learning environments for all children.</strong></td>
<td><strong>History–Social Science</strong></td>
</tr>
</tbody>
</table>
| **Evaluate the effectiveness of early childhood curriculum, classrooms, teaching strategies and how teachers involve families in their children’s development and learning to improve teaching practices for all children.** | • Learning Experience 1  
• Learning Experience 4  
• Learning Experience 5  
• Learning Experience 8  
• Learning Experience 10  
• Learning Experience 11  
• Learning Experience 12 |
| **Design, implement and evaluate curriculum activities that are based on observation and assessment of young children.** | **Apply a variety of effective approaches, strategies and techniques supporting positive relationships with children and adults.** |
| **Critically assess one’s own teaching experiences to guide and inform practice.** | • Learning Experience 3  
• Learning Experience 5  
• Learning Experience 6 |
| **Additional Specific CAP Objectives and Course Content/Topics – See Appendix A** | }
Course: Child Growth and Development

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| Describe major developmental milestones for children from conception through adolescence in the areas of physical, psychosocial, cognitive, and language development. | • Learning Experience 5  
• Learning Experience 6 |
| Identify cultural, economic, political, historical contexts that affect children’s development. | • Learning Experience 7 |
| Identify and compare major theoretical frameworks related to the study of human development. | • Learning Experience 12 |
| Apply developmental theory to child observations, surveys, and/or interviews using investigative research methodologies. | • Learning Experience 2 |
| Differentiate characteristics of typical and atypical development. | • Learning Experience 3  
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Additional Specific CAP Objectives and Course Content/Topics – See Appendix A

**Note to faculty:** See Appendix A for a detailed list of the CAP Student Learning Outcomes, Objectives, and Course Content/Topics indicated for this instructional guide’s domains and learning experiences.
### Curriculum Alignment Project’s (CAP) Lower Division Eight Courses and Student Learning Outcomes (Revised February 2012)

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### Course: Child, Family and Community

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**Additional Specific CAP Objectives and Course Content/Topics – See Appendix A**
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| Recognize developmentally appropriate teaching strategies and apply them in supervised settings for young children. | • Learning Experience 9  
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| Demonstrate an understanding of the many aspects of the teachers’ role in early childhood programs. | • Learning Experience 1  
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| Identify play-based curriculum models and approaches, standards for early learning, and indicators of quality. | • Learning Experience 2  
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• Learning Experience 9 |
| Use the ongoing cycle of curriculum development to plan, implement, and evaluate early childhood activities and environments. | |
| Additional Specific CAP Objectives and Course Content/Topics – See Appendix A |
Course: Principles and Practices of Teaching Young Children

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| Interpret best and promising teaching and care practices as defined within the field of early care and education’s history, range of delivery systems, program types and philosophies and ethical standards. | • Learning Experience 3  
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| • Learning Experience 2  
• Learning Experience 9 |
| Evaluate the characteristics, strengths and limitations of common assessment tools. |
| Complete systematic observations using a variety of methods of data collection to assess the impact of the environment, interactions, and curriculum on children's development and behavior. |
| Identify the role of partnerships with families and other professionals in utilizing interpretations of observational data to inform teaching practices. |
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Course: Health, Safety and Nutrition

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<td>Assess strategies to maximize the mental and physical health of children and adults in accordance with culturally, linguistic and developmentally sound practice.</td>
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<td>Evaluate regulations, standards, policies and procedures related to health, safety, and nutrition in support of young children, teachers and families.</td>
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<td>Discuss the value of collaboration with families and the community.</td>
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<td>Critique the multiple societal impacts on young children’s social identity.</td>
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<td>Critically assess the components of linguistically and culturally relevant, inclusive, age-appropriate, anti-bias approaches in promoting optimum learning and development.</td>
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## Course: Practicum-Field Experience

### Curriculum Alignment Project’s (CAP) Lower Division Eight Courses and Student Learning Outcomes (Revised February 2012)

Student learning outcomes are matched to specific units, domains, and key topics in the instructional guide that will support attainment of that outcome.

### Instructional Guide Domains and Learning Experiences in Which CAP Student Learning Outcomes Are Addressed

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<tr>
<th>Course: Practicum-Field Experience</th>
<th>Science</th>
</tr>
</thead>
</table>
| Integrate understanding of children’s development and needs to create and maintain healthy, safe, respectful, supportive and challenging learning environments for all children. | • Learning Experience 2  
• Learning Experience 5  
• Learning Experience 6  
• Learning Experience 7  
• Learning Experience 9  
• Learning Experience 10  
• Learning Experience 11  
• Learning Experience 12 |
| Evaluate the effectiveness of early childhood curriculum, classrooms, teaching strategies and how teachers involve families in their children’s development and learning to improve teaching practices for all children. | • Learning Experience 8 |
| Design, implement and evaluate curriculum activities that are based on observation and assessment of young children. | |
| Apply a variety of effective approaches, strategies and techniques supporting positive relationships with children and adults. | |
| Critically assess one’s own teaching experiences to guide and inform practice. | • Learning Experience 1  
• Learning Experience 3  
• Learning Experience 4 |

Additional Specific CAP Objectives and Course Content/Topics – See Appendix A
### Course: Introduction to Curriculum

<table>
<thead>
<tr>
<th>Curriculum Alignment Project’s (CAP) Lower Division Eight Courses and Student Learning Outcomes (Revised February 2012)</th>
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<tr>
<td><strong>Course:</strong> Introduction to Curriculum</td>
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<tr>
<td>Recognize developmentally appropriate teaching strategies and apply them in supervised settings for young children.</td>
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<tr>
<td>Demonstrate an understanding of the many aspects of the teachers’ role in early childhood programs.</td>
<td>Overview of the Alignment Document Learning Experience</td>
</tr>
<tr>
<td>Identify play-based curriculum models and approaches, standards for early learning, and indicators of quality.</td>
<td>Overview of the Alignment Document Learning Experience</td>
</tr>
<tr>
<td>Use the ongoing cycle of curriculum development to plan, implement, and evaluate early childhood activities and environments.</td>
<td></td>
</tr>
<tr>
<td>Additional Specific CAP Objectives and Course Content/Topics – See Appendix A</td>
<td></td>
</tr>
</tbody>
</table>

**Note to faculty:** See Appendix A for a detailed list of the CAP Student Learning Outcomes, Objectives, and Course Content/Topics indicated for this instructional guide’s learning experiences.
## Course: Principles and Practices of Teaching Young Children

<table>
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<td>Overview of the Alignment Document Learning Experience</td>
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</tbody>
</table>

### Course: Principles and Practices of Teaching Young Children

- **Interpret best and promising teaching and care practices as defined within the field of early care and education’s history, range of delivery systems, program types and philosophies and ethical standards.**
- **Develop one’s teaching philosophy and professional goals.**
- **Assess early childhood settings, curriculum, and teaching strategies utilizing indicators of quality early childhood practice that support all children including those with diverse characteristics and their families.**
- **Examine the value of play as a vehicle for developing skills, knowledge, dispositions, and strengthening relationships among young children.**
- **Examine a variety of guidance and interaction strategies to increase children’s social competence and promote a caring classroom community.**
- **Analyze the relationship between observation, planning, implementation and assessment in developing effective teaching strategies and positive learning and development.**
- **Additional Specific CAP Objectives and Course Content/Topics – See Appendix A**
Course: Practicum-Field Experience

<table>
<thead>
<tr>
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<td>Evaluate the effectiveness of early childhood curriculum, classrooms, teaching strategies and how teachers involve families in their children’s development and learning to improve teaching practices for all children.</td>
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<td>Design, implement and evaluate curriculum activities that are based on observation and assessment of young children.</td>
<td>•</td>
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<tr>
<td>Apply a variety of effective approaches, strategies and techniques supporting positive relationships with children and adults.</td>
<td>•</td>
</tr>
<tr>
<td>Critically assess one’s own teaching experiences to guide and inform practice.</td>
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</table>
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Appendix A

Student Learning Outcomes and CAP Lower Division Eight Courses
Mapped onto the Instructional Guide for the California Preschool Learning Foundations, Volume 3

To support faculty in decisions regarding how and where they can best use the California Preschool Learning Foundations, Volume 3 in their course work or across their program, the Student Learning Outcomes (SLOs) developed by the Curriculum Alignment Project (CAP) (http://www.childdevelopment.org/cs/cdrc/print/htdocs/services_cap.htm) for the eight core lower division early childhood courses have been mapped onto each learning experience in this instructional guide for consideration. Each Learning Experience Preview Page will provide the list of courses that have been mapped onto the specific learning experience.

The Curriculum Alignment Project's SLOs, objectives, and examples of course content and topics indicated for this instructional guide for the California Preschool Learning Foundations, Volume 3 are found in this Appendix A. Refer to the Student Learning Outcomes Index for an overview of this instructional guide mapping listed by domain. The location of the SLO Index is listed in the Table of Contents for this instructional guide.

These SLOs are organized by the CAP core lower division early childhood courses. This is not an exhaustive list, and faculty might find ways to use the learning experiences to address SLOs by means other than what has been indexed. Working through these selected learning experiences does not guarantee the achievement of any student learning outcome or objective; it is understood that students achieve student outcomes through repeated engagement with information and experiences that build competence.

To assist faculty in using these SLOs as supports for decision making, the instructional guide learning experiences are indexed first by California Preschool Learning Foundations, Volume 3 domains then by CAP courses and SLOs so that faculty can select what is most relevant to their particular needs. Student learning outcomes are matched to specific learning experiences in the instructional guide that will support attainment of that outcome. Not all student learning outcomes map onto the specific content of the instructional guide.

California State University and University of California

The Curriculum Alignment Project (CAP) course and student learning outcomes (SLO) mapping with this instructional guide is done with the understanding that not all institutions will use these particular SLOs or objectives. This is particularly true for faculty at the California State University (CSU) and University of California (UC) campuses. The SLOs do provide learning outcomes that can be used selectively or with adaptations for courses at the CSU and UC campuses and indicate what can be accomplished by students through using the learning experiences in this instructional guide.
History–Social Science Domain

History–Social Science – Learning Experience 1:

Course: Child Growth and Development
Student Learning Outcomes:
• Identify cultural, economic, political, historical contexts that affect children’s development.

Objectives:
• Identify and describe biological and environmental factors that influence children’s development from conception to adolescence across domains.

Content and Topics:
• Contemporary social issues that impact children’s development
• The role and influence of family and caregivers
• The role and influence cultural and societal impacts

Course: Child, Family and Community
Student Learning Outcomes:
• Analyze theories of socialization that address the interrelationship of child, family and community.
• Describe social issues, changes, and transitions that affect children, families, schools, and communities.

Objectives:
• Identify how the child develops within a system and is influenced by numerous factors of socialization including the role of the family, childcare, schooling and the community.
• Compare and contrast diverse family structures, parenting styles, culture, tradition and values and their impact upon children and youth.

Content and Topics:
• Interrelatedness of family, school and community as agents of socialization
• Role of family in children’s developmental outcomes
• Diverse family structures, parenting styles and values
• Teachers’ and caregivers’ influences on children and families

Course: Teaching in a Diverse Society
Student Learning Outcomes:
• Critique the multiple societal impacts on young children’s social identity.
• Analyze various aspects of children’s experience as members of families targeted by social bias considering the significant role of education in reinforcing or contradicting such experiences.
Course: Teaching in a Diverse Society - Continued

Objectives:
• Compare the historical and current perspectives involving diversity and inclusion and their impacts on children’s identity development and learning.

Content and Topics:
• The highly diverse world in which children now live
• Personal histories and experiences; internalized privilege and oppression; impacts on our identities, our choices and our teaching with children and families

Course: Practicum-Field Experience

Student Learning Outcomes:
• Integrate understanding of children’s development and needs to create and maintain healthy, safe, respectful, supportive and challenging learning environments for all children.

Objectives:
• Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.

Content and Topics:
• Application of developmentally, culturally, and linguistically appropriate practices
• Adaptations for children with diverse abilities, learning styles, and temperaments

History–Social Science – Learning Experience 2:

Course: Child Growth and Development

Student Learning Outcomes:
• Describe major developmental milestones for children from conception through adolescence in the areas of physical, psychosocial, cognitive, and language development.

Objectives:
• Examine and evaluate the importance of the early years.
• Identify and describe biological and environmental factors that influence children’s development from conception to adolescence across domains.

Content and Topics:
• Contemporary social issues that impact children’s development
• The role and influence of family and caregivers
• The role and influence cultural and societal impacts

Course: Child, Family and Community

Student Learning Outcomes:
• Analyze theories of socialization that address the interrelationship of child, family and community.
• Describe social issues, changes, and transitions that affect children, families, schools, and communities.
Course: Child, Family and Community - Continued

Student Learning Outcomes - Continued:
• Identify and evaluate community support services and agencies available to families and children.
• Analyze one’s own values, goals and sense of self as related to family history and life experiences, assessing how this impacts relationships with children and families.

Objectives:
• Identify how the child develops within a system and is influenced by numerous factors of socialization including the role of the family, childcare, schooling and the community.
• Compare and contrast diverse family structures, parenting styles, culture, tradition and values and their impact upon children and youth.
• Describe contemporary social issues and their effects on families and children.
• Identify appropriate community resources that support children and families including at risk populations.

Content and Topics:
• Major current and historical theoretical frameworks of socialization
• Interrelatedness of family, school and community as agents of socialization
• Role of family in children’s developmental outcomes
• Diverse family structures, parenting styles and values

Course: Teaching in a Diverse Society

Student Learning Outcomes:
• Critique the multiple impacts on young children’s social identity.
• Analyze various aspects of children’s experience as members of families targeted by social bias considering the significant role of education in reinforcing or contradicting such experiences.
• Evaluate the impact of personal experiences and social identity on teaching effectiveness.

Objectives:
• Compare the historical and current perspectives involving diversity and inclusion and their impacts on children’s identity development and learning.
• Explain the nature and processes of systemic and internalized privilege and oppression.
• Differentiate between various sources of diversity.

Content and Topics:
• The highly diverse world in which children now live
• Clarification of terms: Sex, gender, gender role, sexual orientation; racial, ethnic, cultural, national identity; nuclear family, blended family, single-parent family; trans-racial family, gay-lesbian family, extended family, adoptive family, foster family; etc.
• Identification of stereotypes and biased messages in the media and in the classroom and exploration of educational approaches that teach children how to challenge such messages and develop alternative behaviors
History–Social Science – Learning Experience 3:

Course: Child Growth and Development

Student Learning Outcomes:
• Describe major developmental milestones for children from conception through adolescence in the areas of physical, psychosocial, cognitive, and language development.
• Identify cultural, economic, political, historical contexts that affect children's development.

Objectives:
• Demonstrate knowledge of the physical, social/emotional, cognitive and language development of children, both typical and atypical, in major developmental stages.

Content and Topics:
• Development (including but not limited to physical, social/emotional, cognitive, language, special needs, risk factors, and care and education at each level)
  o Play-years development

Course: Child, Family and Community

Student Learning Outcomes:
• Analyze one’s own values, goals and sense of self as related to family history and life experiences, assessing how this impacts relationships with children and families.

Objectives:
• Identify how the child develops within a system and is influenced by numerous factors of socialization including the role of the family, childcare, schooling and the community.

Content and Topics:
• Interrelatedness of family, school and community as agents of socialization
• The influence of teachers’ and caregivers’ personal experience and family history on relationships with children and families

Course: Introduction to Curriculum

Student Learning Outcomes:
• Recognize developmentally appropriate teaching strategies and apply them in supervised settings for young children.

Objectives:
• Identify the influence of daily schedules and routines on curriculum and activities.

Content and Topics:
• Components of effective learning environments
• Content areas (math, science, literacy, social studies, creative arts)
• The development of the “whole child” (physical, cognitive, and social/emotional development, including socialization, self-regulation, self-help skills for all children)
Course: Principles and Practices of Teaching Young Children
Student Learning Outcomes:
• Examine a variety of guidance and interaction strategies to increase children’s social competence and promote a caring classroom community.

Objectives:
• Identify children’s developmental processes and describe adaptations to curriculum and environments needed to support all children.
• Compare and contrast principles of positive guidance and interactions.

Content and Topics:
• Addressing the needs of the “whole child” (physical, cognitive, social-emotional)
• Positive guidance strategies

Course: Teaching in a Diverse Society
Student Learning Outcomes:
• Critique the multiple societal impacts on young children’s social identity.
• Evaluate the impact of personal experiences and social identity on teaching effectiveness.

Objectives:
• Evaluate inclusive classroom environments, materials and approaches for developmental, cultural, and linguistic appropriateness.
• Demonstrate strategies for helping children negotiate and resolve conflicts with a focus on using anti-bias approaches in the classroom.

Content and Topics:
• Issues of inequity and access as they relate to young children in a world of diversity
• How children think: pre-prejudice, impacts of silence, overt and covert social messages
• Clarification of terms: Sex, gender, gender role, sexual orientation; racial, ethnic, cultural, national identity; nuclear family, blended family, single-parent family; trans-racial family, gay-lesbian family, extended family, adoptive family, foster family; etc.
• Personal histories and experiences; internalized privilege and oppression; impacts on our identities, our choices and our teaching with children and families

Course: Practicum-Field Experience
Student Learning Outcomes:
• Apply a variety of effective approaches, strategies and techniques supporting positive relationships with children and adults.

Objectives:
• Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.
• Integrate content areas and opportunities for development across the curriculum.
• Model and facilitate appropriate problem solving, conflict resolution strategies, and social behavior.
Course: Practicum-Field Experience - Continued

Content and Topics:
- Application of developmentally, culturally, and linguistically appropriate practices
- Positive interactions with children and adults
- Adaptations for children with diverse abilities, learning styles, and temperaments
- Content Areas
  - Social Studies
- Integration of content areas across Curriculum
- California State Learning Standards and tools

History–Social Science – Learning Experience 4:

Course: Child Growth and Development

Student Learning Outcomes:
- Describe major developmental milestones for children from conception through adolescence in the areas of physical, psychosocial, cognitive, and language development.

Objectives:
- Demonstrate knowledge of the physical, social/emotional, cognitive and language development of children, both typical and atypical, in major developmental stages.
- Demonstrate knowledge of current research as it applies to child development.
- Examine and evaluate the role of family in facilitating children’s development.

Content and Topics:
- Major current and historical theoretical frameworks of child development
- Investigative research methods:
  - Analysis
  - Presentation of findings
- Development (including but not limited to physical, social/emotional, cognitive, language, special needs, risk factors, and care and education at each level)
  - Play-years development
- The role and influence of family and caregivers

Course: Child, Family and Community

Student Learning Outcomes:
- Analyze theories of socialization that address the interrelationship of child, family and community.
- Describe effective strategies that empower families and encourage family involvement in children’s development.

Objectives:
- Identify how the child develops within a system and is influenced by numerous factors of socialization including the role of the family, childcare, schooling and the community.
- Explain the effects of age, gender, diverse abilities, language and culture, racial identity and ethnicity, socioeconomic status and institutions on children and families.
- Explore one’s own family history and examine how it affects one’s relationships with children and families.
Course: Child, Family and Community - Continued

Content and Topics:
- Interrelatedness of family, school and community as agents of socialization
- Role of family in children’s developmental outcomes
- Diverse family structures, parenting styles and values
- Teachers’ and caregivers’ influences on children and families
- The influence of teachers’ and caregivers’ personal experience and family history on relationships with children and families

Course: Introduction to Curriculum

Student Learning Outcomes:
- Demonstrate an understanding of the many aspects of the teachers’ role in early childhood programs.

Objectives:
- Identify and evaluate teaching behaviors for research-based best practices.
- Identify ways in which development in all domains and learning in all content areas can be integrated across the curriculum.

Content and Topics:
- Developmental theory as it applies to curriculum development
- Consideration of cultural, linguistic, ethnic, economic, ability and gender diversity including the acquisition of English as a second language in planning for young children
- Use of current research
- Strategies for family involvement
- The development of the “whole child” (physical, cognitive, and social/emotional development, including socialization, self-regulation, self-help skills for all children)

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:
- Examine a variety of guidance and interaction strategies to increase children’s social competence and promote a caring classroom community.

Objectives:
- Identify children’s developmental processes and describe adaptations to curriculum and environments needed to support all children.
- Compare and contrast principles of positive guidance and interactions.
- Describe the characteristics of effective relationships and interactions between early childhood professionals, children, families, and colleagues including the importance of collaboration.

Content and Topics:
- Current and historic models, influences, and approaches in the field of early childhood
- Addressing the needs of the “whole child” (physical, cognitive, social-emotional)
- Collaboration and partnerships with families, colleagues, and health care professionals
Course: Health, Safety and Nutrition

Student Learning Outcomes:
• Discuss the value of collaboration with families and the community.

Objectives:
• Compare and contrast various methods of collaboration with teachers and families to promote health and safety in settings for all children.

Content and Topics:
• Respecting the cultural, linguistic, and developmental differences of families, teachers and children
• Collaboration with families and health care professionals

Course: Teaching in a Diverse Society

Student Learning Outcomes:
• Critique the multiple societal impacts on young children’s social identity.
• Analyze various aspects of children’s experience as members of families targeted by social bias considering the significant role of education in reinforcing or contradicting such experiences.

Objectives:
• Compare the historical and current perspectives involving diversity and inclusion and their impacts on children’s identity development and learning.

Content and Topics:
• The highly diverse world in which children now live
• Personal histories and experiences; internalized privilege and oppression; impacts on our identities, our choices and our teaching with children and families

Course: Practicum-Field Experience

Student Learning Outcomes:
• Integrate understanding of children’s development and needs to create and maintain healthy, safe, respectful, supportive and challenging learning environments for all children.
• Evaluate the effectiveness of early childhood curriculum, classrooms, teaching strategies and how teachers involve families in their children’s development and learning to improve teaching practices for all children.

Objectives:
• Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.
• Model and facilitate appropriate problem solving, conflict resolution strategies, and social behavior.

Content and Topics:
• Application of developmentally, culturally, and linguistically appropriate practices
• Positive interactions with children and adults
• Typical teaching and non-teaching activities in early childhood settings
• California State Learning Standards and tools
• Family involvement in early childhood programs
History–Social Science – Learning Experience 5:

Course: Child Growth and Development

Student Learning Outcomes:
• Describe major developmental milestones for children from conception through adolescence in the areas of physical, psychosocial, cognitive, and language development.

Objectives:
• Demonstrate knowledge of current research as it applies to child development.
• Examine and evaluate the importance of the early years.

Content and Topics:
• Major current and historical theoretical frameworks of child development
• Investigative research methods:
  o Analysis

Course: Introduction to Curriculum

Student Learning Outcomes:
• Identify play-based curriculum models and approaches, standards for early learning, and indicators of quality.

Objectives:
• Demonstrate how curriculum and environment can be designed and adapted for children’s unique and individual ages, stages, and needs.
• Identify ways in which development in all domains and learning in all content areas can be integrated across the curriculum.

Content and Topics:
• Standards from legislation and accrediting groups
• Use of current research

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:
• Interpret best and promising teaching and care practices as defined within the field of early care and education’s history, range of delivery systems, program types and philosophies and ethical standards.

Objectives:
• Investigate various foundations and theories in the field of early childhood education as a basis for forming a personal philosophy of teaching and developing professional goals.

Content and Topics:
• Current and historic models, influences, and approaches in the field of early childhood
• Delivery systems (nonprofit, profit, publicly funded, alternative payment/voucher)
• Attention to developmental needs of children of different ages (infant/toddler, preschool, school-age)
• Quality indicators of programs (e.g., accreditation, assessment tools)
Course: Practicum-Field Experience

Student Learning Outcomes:
• Integrate understanding of children’s development and needs to create and maintain healthy, safe, respectful, supportive and challenging learning environments for all children.
• Critically assess one’s own teaching experiences to guide and inform practice.

Objectives:
• Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.
• Integrate content areas and opportunities for development across the curriculum.
• Analyze student teaching experiences to inform and guide future teaching and collaborative practices.

Content and Topics:
• Professional development skills
• Content Areas:
  o Social Studies
• California State Learning Standards and tools

History–Social Science – Learning Experience 6:

Course: Child Growth and Development

Student Learning Outcomes:
• Identify cultural, economic, political, historical contexts that affect children’s development.

Objectives:
• Examine and evaluate the importance of the early years.
• Examine and evaluate the role of family in facilitating children’s development.

Content and Topics:
• Contemporary social issues that impact children’s development
• The role and influence of family and caregivers
• The role and influence cultural and societal impacts

Course: Child, Family and Community

Student Learning Outcomes:
• Analyze theories of socialization that address the interrelationship of child, family and community.
• Describe social issues, changes, and transitions that affect children, families, schools, and communities.
• Analyze one’s own values, goals and sense of self as related to family history and life experiences, assessing how this impacts relationships with children and families.

Objectives:
• Identify how the child as develops within a system and is influenced by numerous factors of socialization including the role of the family, childcare, schooling and the community.
• Explain the effects of age, gender, diverse abilities, language and culture, racial identity and ethnicity, socioeconomic status and institutions on children and families.
Course: Child, Family and Community - Continued

Objectives - Continued:
• Explore one’s own family history and examine how it affects one’s relationships with children
and families.

Content and Topics:
• Interrelatedness of family, school and community as agents of socialization
• Role of family in children’s developmental outcomes
• The influence of teachers’ and caregivers’ personal experience and family history on
relationships with children and families
• The role of group childcare and early schooling on socialization
• Contemporary social issues and their effect on children and families

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:
• Develop one’s teaching philosophy and professional goals.
• Examine a variety of guidance and interaction strategies to increase children’s social
competence and promote a caring classroom community.

Objectives:
• Identify the historical roots, learning theories and professional pathways in early childhood
education including ethical and professional standards.
• Describe the characteristics of effective relationships and interactions between early
childhood professionals, children, families, and colleagues including the importance of
collaboration.

Content and Topics:
• The importance of developmentally, culturally, linguistically appropriate practice
• Importance of positive teacher-child relationships and interactions
• Developing philosophy of Early Childhood

Course: Health, Safety and Nutrition

Student Learning Outcomes:
• Assess strategies to maximize the mental and physical health of children and adults in
accordance with culturally, linguistic and developmentally sound practice.
• Discuss the value of collaboration with families and the community.

Objectives:
• Compare and contrast various methods of collaboration with teachers and families to
promote health and safety in settings for all children.

Content and Topics:
• Respecting the cultural, linguistic, and developmental differences of families, teachers and
children
• Collaboration with families and health care professionals
Course: Teaching in a Diverse Society

Student Learning Outcomes:
• Critique the multiple societal impacts on young children’s social identity.
• Analyze various aspects of children’s experience as members of families targeted by social bias considering the significant role of education in reinforcing or contradicting such experiences.

Objectives:
• Compare the historical and current perspectives involving diversity and inclusion and their impacts on children’s identity development and learning.
• Differentiate between various sources of diversity.
• Demonstrate strategies for helping children negotiate and resolve conflicts with a focus on using anti-bias approaches in the classroom.

Content and Topics:
• The highly diverse world in which children now live
• How children think: pre-prejudice, impacts of silence, overt and covert social messages
• Personal histories and experiences; internalized privilege and oppression; impacts on our identities, our choices and our teaching with children and families

Course: Practicum-Field Experience

Student Learning Outcomes:
• Critically assess one’s own teaching experiences to guide and inform practice.

Objectives:
• Analyze student teaching experiences to inform and guide future teaching and collaborative practices.

Content and Topics:
• Application of developmentally, culturally, and linguistically appropriate practices
• Integration of content areas across Curriculum
• California State Learning Standards and tools
• Family involvement in early childhood programs

Course: Child Growth and Development

Student Learning Outcomes:
• Identify cultural, economic, political, historical contexts that affect children’s development.

Objectives:
• Examine and evaluate the role of family in facilitating children’s development.

Content and Topics:
• The role and influence of family and caregivers
• The role and influence cultural and societal impacts

History–Social Science – Learning Experience 7:
Course: Child, Family and Community

Student Learning Outcomes:
• Analyze theories of socialization that address the interrelationship of child, family and community.
• Describe effective strategies that empower families and encourage family involvement in children’s development.

Objectives:
• Identify how the child develops within a system and is influenced by numerous factors of socialization including the role of the family, childcare, schooling and the community.
• Explain the effects of age, gender, diverse abilities, language and culture, racial identity and ethnicity, socioeconomic status and institutions on children and families.
• Describe contemporary social issues and their effects on families and children.

Content and Topics:
• Interrelatedness of family, school and community as agents of socialization
• Role of family in children’s developmental outcomes
• Diverse family structures, parenting styles and values

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:
• Assess early childhood settings, curriculum, and teaching strategies utilizing indicators of quality early childhood practice that support all children including those with diverse characteristics and their families.

Objectives:
• Describe the characteristics of effective relationships and interactions between early childhood professionals, children, families, and colleagues including the importance of collaboration.

Content and Topics:
• Characteristics and roles of an effective teacher in an early childhood setting
• Collaboration and partnerships with families, colleagues, and health care professionals

Course: Observation and Assessment

Student Learning Outcomes:
• Identify the role of partnerships with families and other professionals in utilizing interpretations of observational data to inform teaching practices.

Objectives:
• Describe the effect of social context, child’s state of health and well-being, primary language, ability, and environment on assessment processes.

Content and Topics:
• The value of collaboration with families and professionals
Course: Health, Safety and Nutrition

Student Learning Outcomes:
• Discuss the value of collaboration with families and the community.

Objectives:
• Compare and contrast various methods of collaboration with teachers and families to promote health and safety in settings for all children.

Content and Topics:
• Respecting the cultural, linguistic, and developmental differences of families, teachers and children
• Collaboration with families and health care professionals

Course: Teaching in a Diverse Society

Student Learning Outcomes:
• Critique the multiple societal impacts on young children’s social identity.
• Analyze various aspects of children’s experience as members of families targeted by social bias considering the significant role of education in reinforcing or contradicting such experiences.

Objectives:
• Differentiate between various sources of diversity.
• Demonstrate strategies for helping children negotiate and resolve conflicts with a focus on using anti-bias approaches in the classroom.
• Investigate and develop strategies to create partnerships with families on issues of bias and injustice through building mutual, collaborative relationships.

Content and Topics:
• The highly diverse world in which children now live
• Environments and curriculums that respectively reflect children’s cultures and experiences and that expose children to the larger communities in which they live
• Personal histories and experiences; internalized privilege and oppression; impacts on our identities, our choices and our teaching with children and families

Course: Practicum-Field Experience

Student Learning Outcomes:
• Evaluate the effectiveness of early childhood curriculum, classrooms, teaching strategies and how teachers involve families in their children’s development and learning to improve teaching practices for all children.

Objectives:
• Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.

Content and Topics:
• Application of developmentally, culturally, and linguistically appropriate practices
• Integration of content areas across Curriculum
• California State Learning Standards and tools
• Family involvement in early childhood programs
History–Social Science – Learning Experience 8:

**Course: Child Growth and Development**

Student Learning Outcomes:
- Identify cultural, economic, political, historical contexts that affect children’s development.

Objectives:
- Demonstrate knowledge of current research as it applies to child development.
- Examine and evaluate the role of family in facilitating children’s development.
- Identify and describe biological and environmental factors that influence children’s development from conception to adolescence across domains.

Content and Topics:
- Contemporary social issues that impact children’s development
- The role and influence of family and caregivers
- The role and influence cultural and societal impacts

**Course: Child, Family and Community**

Student Learning Outcomes:
- Analyze theories of socialization that address the interrelationship of child, family and community.
- Describe effective strategies that empower families and encourage family involvement in children’s development.
- Identify and evaluate community support services and agencies available to families and children.
- Analyze one’s own values, goals and sense of self as related to family history and life experiences, assessing how this impacts relationships with children and families.

Objectives:
- Identify how the child as develops within a system and is influenced by numerous factors of socialization including the role of the family, childcare, schooling and the community.
- Compare and contrast diverse family structures, parenting styles, culture, tradition and values and their impact upon children and youth.
- Explain the effects of age, gender, diverse abilities, language and culture, racial identity and ethnicity, socioeconomic status and institutions on children and families.
- Analyze diverse practices, patterns and styles of communication, and demonstrate positive communication strategies that support all families.
- Identify appropriate community resources that support children and families including at risk populations.
- Explore one’s own family history and examine how it affects one’s relationships with children and families.

Content and Topics:
- Role of family in children’s developmental outcomes
- Diverse family structures, parenting styles and values
Course: Child, Family and Community - Continued

Content and Topics - Continued:
- Community agencies, referral systems, procedures and availability of specialized services and support for families and children including at-risk populations
- The influence of teachers’ and caregivers’ personal experience and family history on relationships with children and families
- Contemporary social issues and their effect on children and families
- Stereotypes and assumptions and their effect upon the family, the culture and the professional community

Course: Introduction to Curriculum

Student Learning Outcomes:
- Demonstrate an understanding of the many aspects of the teachers’ role in early childhood programs.

Objectives:
- Demonstrate how curriculum and environment can be designed and adapted for children’s unique and individual ages, stages, and needs.

Content and Topics:
- Consideration of cultural, linguistic, ethnic, economic, ability and gender diversity including the acquisition of English as a second language in planning for young children

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:
- Assess early childhood settings, curriculum, and teaching strategies utilizing indicators of quality early childhood practice that support all children including those with diverse characteristics and their families.
- Examine a variety of guidance and interaction strategies to increase children’s social competence and promote a caring classroom community.

Objectives:
- Describe the characteristics of effective relationships and interactions between early childhood professionals, children, families, and colleagues including the importance of collaboration.

Content and Topics:
- The importance of developmentally, culturally, linguistically appropriate practice

Course: Observation and Assessment

Student Learning Outcomes:
- Identify the role of partnerships with families and other professionals in utilizing interpretations of observational data to inform teaching practices.
Course: Observation and Assessment - Continued

Objectives:
- Describe the effect of social context, child’s state of health and well-being, primary language, ability, and environment on assessment processes.

Content and Topics:
- The value of collaboration with families and professionals

Course: Teaching in a Diverse Society

Student Learning Outcomes:
- Critique the multiple societal impacts on young children’s social identity.
- Analyze various aspects of children’s experience as members of families targeted by social bias considering the significant role of education in reinforcing or contradicting such experiences.
- Critically assess the components of linguistically and culturally relevant, inclusive, age-appropriate, anti-bias approaches in promoting optimum learning and development.
- Evaluate the impact of personal experiences and social identity on teaching effectiveness.

Objectives:
- Compare the historical and current perspectives involving diversity and inclusion and their impacts on children’s identity development and learning.
- Investigate and develop strategies to create partnerships with families on issues of bias and injustice through building mutual, collaborative relationships.

Content and Topics:
- The highly diverse world in which children now live
- Differences between individual prejudice and the systems within a society that maintain unequal access based on race, gender, economic class, ability, sexual orientation, religious beliefs, family groupings, culture, language and all “isms”
- Effects of dominant culture holiday curriculums; Examination of culturally and class embedded traditions of diverse groups
- Teachers and families: teacher responsibility to assess power dynamics; and commitment to co-creation of anti-bias approaches

Course: Practicum-Field Experience

Student Learning Outcomes:
- Integrate understanding of children’s development and needs to create and maintain healthy, safe, respectful, supportive and challenging learning environments for all children.

Objectives:
- Assume teaching and non-teaching responsibilities and demonstrate developmentally appropriate practices in an early childhood classroom.

Content and Topics:
- Adaptations for children with diverse abilities, learning styles, and temperaments
- Typical teaching and non-teaching activities in early childhood settings
- California State Learning Standards and tools
History–Social Science – Learning Experience 9:

Course: Child Growth and Development

Student Learning Outcomes:
- Describe major developmental milestones for children from conception through adolescence in the areas of physical, psychosocial, cognitive, and language development.
- Apply developmental theory to child observations, surveys, and/or interviews using investigative research methodologies.

Objectives:
- Demonstrate knowledge of current research as it applies to child development.
- Demonstrate objective techniques and skills when observing, interviewing, describing and evaluating behavior in children of all ages.
- Examine and evaluate the importance of the early years.

Content and Topics:
- Major current and historical theoretical frameworks of child development
- Investigative research methods:
  - Observation
  - Analysis

Course: Introduction to Curriculum

Student Learning Outcomes:
- Use the ongoing cycle of curriculum development to plan, implement, and evaluate early childhood activities and environments.

Objectives:
- Observe and document children at play and propose appropriate activities and possibilities for expanding children's learning in a variety of curriculum areas.
- Identify ways in which development in all domains and learning in all content areas can be integrated across the curriculum.

Content and Topics:
- Observation and assessment strategies as they apply to curriculum planning and evaluation
- Innovative and best practices in teaching
- Use of current research
- The continuing cycle of observation, assessment, curriculum planning, documentation

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:
- Analyze the relationship between observation, planning, implementation and assessment in developing effective teaching strategies and positive learning and development.

Objectives:
- Demonstrate basic observational skills.
- Describe the relationship of observation, planning, implementation, and assessment in effective programming.
Course: Principles and Practices of Teaching Young Children - Continued

Content and Topics:
- The importance of developmentally, culturally, linguistically appropriate practice
- Essentials of program planning and the interrelationship of planning, observation, and assessment

Course: Observation and Assessment

Student Learning Outcomes:
- Compare the purpose, value and use of formal and informal observation and assessment strategies.

Objectives:
- Use observation tools to identify quality in play-based environment, curriculum, and care routines, and to detect trends and anomalies in individuals and groups.
- Demonstrate and apply knowledge of developmental domains to interpret observations.

Content and Topics:
- Differentiation between subjective and objective data collection and recording
- Appropriate methods of child observation, documentation, portfolio collection, and record keeping
- Observation as part of the on-going process of curriculum and planning that support all children

Course: Practicum-Field Experience

Student Learning Outcomes:
- Evaluate the effectiveness of early childhood curriculum, classrooms, teaching strategies and how teachers involve families in their children’s development and learning to improve teaching practices for all children.

Objectives:
- Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.

Content and Topics:
- Ongoing Curriculum Development Cycle:
  - Observation
- Integration of content areas across Curriculum
- Environment as a teaching and learning tool
- California State Learning Standards and tools
History–Social Science – Learning Experience 10:

Course: Child, Family and Community

Student Learning Outcomes:
• Describe effective strategies that empower families and encourage family involvement in children’s development.

Objectives:
• Identify how the child develops within a system and is influenced by numerous factors of socialization including the role of the family, childcare, schooling and the community.

Content and Topics:
• Interrelatedness of family, school and community as agents of socialization
• The influence of teachers’ and caregivers’ personal experience and family history on relationships with children and families
• The role of group childcare and early schooling on socialization

Course: Introduction to Curriculum

Student Learning Outcomes:
• Recognize developmentally appropriate teaching strategies and apply them in supervised settings with young children.
• Demonstrate an understanding of the many aspects of the teachers’ role in early childhood programs.

Objectives:
• Identify and evaluate teaching behaviors for research-based best practices.
• Identify ways in which development in all domains and learning in all content areas can be integrated across the curriculum.

Content and Topics:
• Standards from legislation and accrediting groups
• Planning for diverse learning styles, motivations, interests, and abilities
• Innovative and best practices in teaching
• Use of current research

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:
• Interpret best and promising teaching and care practices as defined within the field of early care and education’s history, range of delivery systems, program types and philosophies and ethical standards.

Objectives:
• Investigate various foundations and theories in the field of early childhood education as a basis for forming a personal philosophy of teaching and developing professional goals.
Course: Principles and Practices of Teaching Young Children - Continued

Content and Topics:
- Current and historic models, influences, and approaches in the field of early childhood
- Delivery systems (nonprofit, profit, publicly funded, alternative payment/voucher)

Course: Teaching in a Diverse Society

Student Learning Outcomes:
- Analyze various aspects of children’s experience as members of families targeted by social bias considering the significant role of education in reinforcing or contradicting such experiences.
- Evaluate the impact of personal experiences and social identity on teaching effectiveness.

Objectives:
- Evaluate inclusive classroom environments, materials and approaches for developmental, cultural, and linguistic appropriateness.

Content and Topics:
- The highly diverse world in which children now live
- Differences between individual prejudice and the systems within a society that maintain unequal access based on race, gender, economic class, ability, sexual orientation, religious beliefs, family groupings, culture, language and all “isms”
- Culturally and developmentally appropriate classrooms: curriculum, environment; human relationships
- Effects of dominant culture holiday curriculums; Examination of culturally and class embedded traditions of diverse groups
- The teacher as model: self knowledge; recognition and respect for differences; responsive behaviors; acknowledgement and struggle with bias; change agent for and with children and families
- Teachers and families: teacher responsibility to assess power dynamics; and commitment to co-creation of anti-bias approaches

Course: Practicum-Field Experience

Student Learning Outcomes:
- Integrate understanding of children’s development and needs to create and maintain healthy, safe, respectful, supportive and challenging learning environments for all children.
- Evaluate the effectiveness of early childhood curriculum, classrooms, teaching strategies and how teachers involve families in their children’s development and learning to improve teaching practices for all children.

Objectives:
- Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.
- Model and facilitate appropriate problem solving, conflict resolution strategies, and social behavior.

Content and Topics:
- Content Areas:
  - Social Studies
- California State Learning Standards and tools
History–Social Science – Learning Experience 11:

Course: Child Growth and Development

Student Learning Outcomes:
• Identify and compare major theoretical frameworks related to the study of human development.

Objectives:
• Demonstrate knowledge of the physical, social/emotional, cognitive and language development of children, both typical and atypical, in major developmental stages.

Content and Topics:
• Major current and historical theoretical frameworks of child development

Course: Practicum-Field Experience

Student Learning Outcomes:
• Integrate understanding of children’s development and needs to create and maintain healthy, safe, respectful, supportive and challenging learning environments for all children.

Objectives:
• Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.
• Integrate content areas and opportunities for development across the curriculum.

Content and Topics:
• Content Areas
  a. Language
  b. Literacy
  c. Math
  d. Science
  e. Social Studies
  f. Visual and performing arts
• Integration of content areas across Curriculum

History–Social Science – Learning Experience 12:

Course: Child Growth and Development

Student Learning Outcomes:
• Identify and compare major theoretical frameworks related to the study of human development.

Objectives:
• Demonstrate knowledge of the physical, social/emotional, cognitive and language development of children, both typical and atypical, in major developmental stages.
Course: Child Growth and Development - Continued

Content and Topics:
• Major current and historical theoretical frameworks of child development

Course: Practicum-Field Experience

Student Learning Outcomes:
• Integrate understanding of children’s development and needs to create and maintain healthy, safe, respectful, supportive and challenging learning environments for all children.

Objectives:
• Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.
• Integrate content areas and opportunities for development across the curriculum.

Content and Topics:
• Content Areas
  a. Language
  b. Literacy
  c. Math
  d. Science
  e. Social Studies
  f. Visual and performing arts
• Integration of content areas across Curriculum
Science Domain

Science – Learning Experience 1:

Course: Child, Family and Community

Student Learning Outcomes:
• Analyze theories of socialization that address the interrelationship of child, family and community.

Objectives:
• Identify how the child develops within a system and is influenced by numerous factors of socialization including the role of the family, childcare, schooling and the community.

Content and Topics:
• Major current and historical theoretical frameworks of socialization
• Interrelatedness of family, school and community as agents of socialization
• Role of family in children’s developmental outcomes
• Diverse family structures, parenting styles and values

Course: Introduction to Curriculum

Student Learning Outcomes:
• Demonstrate an understanding of the many aspects of the teachers’ role in early childhood programs.

Objectives:
• Demonstrate how curriculum and environment can be designed and adapted for children’s unique and individual ages, stages, and needs.

Content and Topics:
• Planning for diverse learning styles, motivations, interests, and abilities
• Use of current research
• Content areas (math, science, literacy, social studies, creative arts)

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:
• Develop one’s teaching philosophy and professional goals.

Objectives:
• Identify components of a play-based curriculum which is developmentally, culturally and linguistically appropriate and supports the development of all young children.

Content and Topics:
• The importance of developmentally, culturally, linguistically appropriate practice
• The influence of environment on behavior and learning (environment as third teacher)
Course: Teaching in a Diverse Society

Student Learning Outcomes:
• Critique the multiple societal impacts on young children’s social identity.
• Evaluate the impact of personal experiences and social identity on teaching effectiveness.

Objectives:
• Evaluate inclusive classroom environments, materials and approaches for developmental, cultural, and linguistic appropriateness.

Content and Topics:
• The highly diverse world in which children now live
• Environments and curriculums that respectively reflect children’s cultures and experiences and that expose children to the larger communities in which they live

Course: Practicum-Field Experience

Student Learning Outcomes:
• Critically assess one’s own teaching experiences to guide and inform practice.

Objectives:
• Analyze student teaching experiences to inform and guide future teaching and collaborative practices.

Content and Topics:
• Application of developmentally, culturally, and linguistically appropriate practices
• Content Areas:
  o Science
• California State Learning Standards and tools

Science – Learning Experience 2:

Course: Child Growth and Development

Student Learning Outcomes:
• Apply developmental theory to child observations, surveys, and/or interviews using investigative research methodologies.

Objectives:
• Demonstrate objective techniques and skills when observing, interviewing, describing and evaluating behavior in children of all ages.

Content and Topics:
• Investigative research methods: Observation
• Development (including but not limited to physical, social/emotional, cognitive, language, special needs, risk factors, and care and education at each level):
  o Play-years development
Course: Introduction to Curriculum

Student Learning Outcomes:
• Identify play-based curriculum models and approaches, standards for early learning, and indicators of quality.

Objectives:
• Observe and document children at play and propose appropriate activities and possibilities for expanding children's learning in a variety of curriculum areas.
• Identify ways in which the environment functions as an essential component of curriculum.
• Identify ways in which development in all domains and learning in all content areas can be integrated across the curriculum.

Content and Topics:
• Standards from legislation and accrediting groups
• The effect of environment on behavior

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:
• Examine the value of play as a vehicle for developing skills, knowledge, dispositions, and strengthening relationships among young children.

Objectives:
• Investigate various foundations and theories in the field of early childhood education as a basis for forming a personal philosophy of teaching and developing professional goals.

Content and Topics:
• Play as a vehicle for development and learning
• The influence of environment on behavior and learning (environment as third teacher)

Course: Observation and Assessment

Student Learning Outcomes:
• Compare the purpose, value and use of formal and informal observation and assessment strategies.

Objectives:
• Demonstrate and apply knowledge of developmental domains to interpret observations.

Content and Topics:
• Appropriate methods of child observation, documentation, portfolio collection, and record keeping

Course: Practicum-Field Experience

Student Learning Outcomes:
• Integrate understanding of children’s development and needs to create and maintain healthy, safe, respectful, supportive and challenging learning environments for all children.
Course: Practicum-Field Experience - Continued

Objectives:
• Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.

Content and Topics:
• Content Areas:
  o Science
• California State Learning Standards and tools

Science – Learning Experience 3:

Course: Child Growth and Development

Student Learning Outcomes:
• Differentiate characteristics of typical and atypical development.

Objectives:
• Demonstrate knowledge of the physical, social/emotional, cognitive and language development of children, both typical and atypical, in major developmental stages.
• Examine and evaluate the importance of the early years.

Content and Topics:
• Development (including but not limited to physical, social/emotional, cognitive, language, special needs, risk factors, and care and education at each level).
  o Play-years development

Course: Introduction to Curriculum

Student Learning Outcomes:
• Demonstrate an understanding of the many aspects of the teachers’ role in early childhood programs.

Objectives:
• Identify and evaluate teaching behaviors for research-based best practices.

Content and Topics:
• Standards from legislation and accrediting groups
• Use of current research
• Content areas (math, science, literacy, social studies, creative arts)

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:
• Interpret best and promising teaching and care practices as defined within the field of early care and education’s history, range of delivery systems, program types and philosophies and ethical standards.
Course: Principles and Practices of Teaching Young Children - Continued

Objectives:
- Investigate various foundations and theories in the field of early childhood education as a basis for forming a personal philosophy of teaching and developing professional goals.

Content and Topics:
- Characteristics and roles of an effective teacher in an early childhood setting

Course: Practicum-Field Experience

Student Learning Outcomes:
- Critically assess one’s own teaching experiences to guide and inform practice.

Objectives:
- Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.
- Analyze student teaching experiences to inform and guide future teaching and collaborative practices.

Content and Topics:
- Application of developmentally, culturally, and linguistically appropriate practices
- Content Areas:
  - Science
- California State Learning Standards and tools

Science – Learning Experience 4:

Course: Introduction to Curriculum

Student Learning Outcomes:
- Identify play-based curriculum models and approaches, standards for early learning, and indicators of quality.

Objectives:
- Observe and document children at play and propose appropriate activities and possibilities for expanding children's learning in a variety of curriculum areas.

Content and Topics:
- Standards from legislation and accrediting groups
- Innovative and best practices in teaching

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:
- Interpret best and promising teaching and care practices as defined within the field of early care and education’s history, range of delivery systems, program types and philosophies and ethical standards.
Course: Principles and Practices of Teaching Young Children - Continued

Objectives:
- Investigate various foundations and theories in the field of early childhood education as a basis for forming a personal philosophy of teaching and developing professional goals.
- Identify children’s developmental processes and describe adaptations to curriculum and environments needed to support all children.
- Demonstrate basic observational skills.

Content and Topics:
- The importance of developmentally, culturally, linguistically appropriate practice
- Applying developmentally-appropriate practices to normative and atypical development

Course: Teaching in a Diverse Society

Student Learning Outcomes:
- Critically assess the components of linguistically and culturally relevant, inclusive, age-appropriate, anti-bias approaches in promoting optimum learning and development.

Objectives:
- Evaluate inclusive classroom environments, materials and approaches for developmental, cultural, and linguistic appropriateness.

Content and Topics:
- Culturally and developmentally appropriate classrooms: curriculum, environment; human relationships

Course: Practicum-Field Experience

Student Learning Outcomes:
- Critically assess one’s own teaching experiences to guide and inform practice.

Objectives:
- Present and evaluate a variety of developmentally, culturally and linguistically appropriate play-based learning experiences.

Content and Topics:
- Application of developmentally, culturally, and linguistically appropriate practices
- Adaptations for children with diverse abilities, learning styles, and temperaments
- Content Areas:
  - Science

Science – Learning Experience 5:

Course: Child Growth and Development

Student Learning Outcomes:
- Describe major developmental milestones for children from conception through adolescence in the areas of physical, psychosocial, cognitive, and language development.
Appendix A

Course: Child Growth and Development - Continued

Objectives:
- Demonstrate knowledge of current research as it applies to child development.
- Examine and evaluate the importance of the early years.

Content and Topics:
- Major current and historical theoretical frameworks of child development
- Investigative research methods:
  - Analysis

Course: Introduction to Curriculum

Student Learning Outcomes:
- Identify play-based curriculum models and approaches, standards for early learning, and indicators of quality.

Objectives:
- Demonstrate how curriculum and environment can be designed and adapted for children’s unique and individual ages, stages, and needs.
- Identify ways in which development in all domains and learning in all content areas can be integrated across the curriculum.

Content and Topics:
- Standards from legislation and accrediting groups
- Use of current research

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:
- Interpret best and promising teaching and care practices as defined within the field of early care and education’s history, range of delivery systems, program types and philosophies and ethical standards.

Objectives:
- Investigate various foundations and theories in the field of early childhood education as a basis for forming a personal philosophy of teaching and developing professional goals.

Content and Topics:
- Current and historic models, influences, and approaches in the field of early childhood
- Delivery systems (nonprofit, profit, publicly funded, alternative payment/voucher)
- Attention to developmental needs of children of different ages (infant/toddler, preschool, school-age)
- Quality indicators of programs (e.g., accreditation, assessment tools)

Course: Practicum-Field Experience

Student Learning Outcomes:
- Integrate understanding of children’s development and needs to create and maintain healthy, safe, respectful, supportive and challenging learning environments for all children.
Course: Practicum-Field Experience - Continued

Objectives:
- Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.
- Integrate content areas and opportunities for development across the curriculum.

Content and Topics:
- Content Areas:
  - Social Studies
- California State Learning Standards and tools

Science – Learning Experience 6:

Course: Child Growth and Development

Student Learning Outcomes:
- Describe major developmental milestones for children from conception through adolescence in the areas of physical, psychosocial, cognitive, and language development.

Objectives:
- Demonstrate knowledge of current research as it applies to child development.
- Examine and evaluate the importance of the early years.

Content and Topics:
- Major current and historical theoretical frameworks of child development
- Investigative research methods:
  - Interviews
  - Surveys
  - Observation
  - Documentation
  - Analysis
  - Presentation of findings
  - Ethics, bias, and validity of research
- Development (including but not limited to physical, social/emotional, cognitive, language, special needs, risk factors, and care and education at each level);
  - Play-years development.

Course: Introduction to Curriculum

Student Learning Outcomes:
- Identify play-based curriculum models and approaches, standards for early learning, and indicators of quality.

Objectives:
- Identify and evaluate teaching behaviors for research-based best practices.
- Identify ways in which development in all domains and learning in all content areas can be integrated across the curriculum.
Course: Introduction to Curriculum - Continued

Content and Topics:
• Developmental theory as it applies to curriculum development
• Innovative and best practices in teaching
• Use of current research

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:
• Examine the value of play as a vehicle for developing skills, knowledge, dispositions, and strengthening relationships among young children.
• Analyze the relationship between observation, planning, implementation and assessment in developing effective teaching strategies and positive learning and development.

Objectives:
• Identify components of a play-based curriculum which is developmentally, culturally and linguistically appropriate and supports the development of all young children.
• Investigate various foundations and theories in the field of early childhood education as a basis for forming a personal philosophy of teaching and developing professional goals.

Content and Topics:
• Addressing the needs of the “whole child” (physical, cognitive, social-emotional)
• Play as a vehicle for development and learning
• The influence of environment on behavior and learning (environment as third teacher)

Course: Practicum-Field Experience

Student Learning Outcomes:
• Integrate understanding of children’s development and needs to create and maintain healthy, safe, respectful, supportive and challenging learning environments for all children.

Objectives:
• Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.
• Integrate content areas and opportunities for development across the curriculum.

Content and Topics:
• Integration of content areas across Curriculum
• California State Learning Standards and tools

Science – Learning Experience 7:

Course: Child Growth and Development

Student Learning Outcomes:
• Identify cultural, economic, political, historical contexts affect children’s development.
• Differentiate characteristics of typical and atypical development.
Course: Child Growth and Development - Continued

Objectives:
• Examine and evaluate the importance of the early years.
• Examine and evaluate the role of family in facilitating children’s development.
• Identify and describe biological and environmental factors that influence children’s development from conception to adolescence across domains.

Content and Topics:
• Investigative research methods:
  o Ethics, bias, and validity of research
• The role and influence of family and caregivers
• The role and influence cultural and societal impacts

Course: Child, Family and Community

Student Learning Outcomes:
• Analyze theories of socialization that address the interrelationship of child, family and community.
• Analyze one’s own values, goals and sense of self as related to family history and life experiences, assessing how this impacts relationships with children and families.

Objectives:
• Identify how the child develops within a system and is influenced by numerous factors of socialization including the role of the family, childcare, schooling and the community.
• Compare and contrast diverse family structures, parenting styles, culture, tradition and values and their impact upon children and youth.

Content and Topics:
• Interrelatedness of family, school and community as agents of socialization
• Role of family in children’s developmental outcomes
• Diverse family structures, parenting styles and values
• The influence of teachers’ and caregivers’ personal experience and family history on relationships with children and families

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:
• Assess early childhood settings, curriculum, and teaching strategies utilizing indicators of quality early childhood practice that support all children including those with diverse characteristics and their families.

Objectives:
• Identify components of a play-based curriculum which is developmentally, culturally and linguistically appropriate and supports the development of all young children.

Content and Topics:
• The importance of developmentally, culturally, linguistically appropriate practice
**Course: Teaching in a Diverse Society**

**Student Learning Outcomes:**
- Analyze various aspects of children’s experience as members of families targeted by social bias considering the significant role of education in reinforcing or contradicting such experiences.
- Critically assess the components of linguistically and culturally relevant, inclusive, age-appropriate, anti-bias approaches in promoting optimum learning and development.

**Objectives:**
- Differentiate between various sources of diversity.
- Identify and explore the overlapping influences of cultural identity and various “isms” as they relate to children, families, and early childhood settings.
- Evaluate inclusive classroom environments, materials and approaches for developmental, cultural, and linguistic appropriateness.

**Content and Topics:**
- The highly diverse world in which children now live
- Issues of inequity and access as they relate to young children in a world of diversity
- Culturally and developmentally appropriate classrooms: curriculum, environment; human relationships

**Course: Practicum-Field Experience**

**Student Learning Outcomes:**
- Integrate understanding of children’s development and needs to create and maintain healthy, safe, respectful, supportive and challenging learning environments for all children.

**Objectives:**
- Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.
- Present and evaluate a variety of developmentally, culturally and linguistically appropriate play-based learning experiences.

**Content and Topics:**
- Application of developmentally, culturally, and linguistically appropriate practices
- Adaptations for children with diverse abilities, learning styles, and temperaments
- California State Learning Standards and tools

**Science – Learning Experience 8:**

**Course: Child, Family and Community**

**Student Learning Outcomes:**
- Describe effective strategies that empower families and encourage family involvement in children’s development.

**Objectives:**
- Analyze diverse practices, patterns and styles of communication, and demonstrate positive communication strategies that support all families.
- Identify appropriate community resources that support children and families including at risk populations.
Course: Child, Family and Community - Continued

Content and Topics:
- Teachers’ and caregivers’ influences on children and families
- Community agencies, referral systems, procedures and availability of specialized services and support for families and children including at-risk populations

Course: Introduction to Curriculum

Student Learning Outcomes:
- Identify play-based curriculum models and approaches, standards for early learning, and indicators of quality.

Objectives:
- Observe and document children at play and propose appropriate activities and possibilities for expanding children's learning in a variety of curriculum areas.

Content and Topics:
- Innovative and best practices in teaching
- Use of current research
- Strategies for family involvement

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:
- Examine the value of play as a vehicle for developing skills, knowledge, dispositions, and strengthening relationships among young children.

Objectives:
- Identify components of a play-based curriculum which is developmentally, culturally and linguistically appropriate and supports the development of all young children.
- Describe the characteristics of effective relationships and interactions between early childhood professionals, children, families, and colleagues including the importance of collaboration.

Content and Topics:
- Play as a vehicle for development and learning
- Characteristics and roles of an effective teacher in an early childhood setting

Course: Teaching in a Diverse Society

Student Learning Outcomes:
- Analyze various aspects of children’s experience as members of families targeted by social bias considering the significant role of education in reinforcing or contradicting such experiences.

Objectives:
- Investigate and develop strategies to create partnerships with families on issues of bias and injustice through building mutual, collaborative relationships.

Content and Topics:
- Anti-bias approaches to all curriculum arenas, materials, activities, goals, assessment
- Environments and curriculums that respectively reflect children’s cultures and experiences and that expose children to the larger communities in which they live
Course: Practicum-Field Experience

Student Learning Outcomes:
• Evaluate the effectiveness of early childhood curriculum, classrooms, teaching strategies and how teachers involve families in their children’s development and learning to improve teaching practices for all children.

Objectives:
• Present and evaluate a variety of developmentally, culturally and linguistically appropriate play-based learning experiences.
• Use professional written and verbal communication skills.

Content and Topics:
• California State Learning Standards and tools
• Family involvement in early childhood programs

Science – Learning Experience 9:

Course: Introduction to Curriculum

Student Learning Outcomes:
• Recognize developmentally appropriate teaching strategies and apply them in supervised settings for young children.
• Identify play-based curriculum models and approaches, standards for early learning, and indicators of quality.

Objectives:
• Identify and evaluate teaching behaviors for research-based best practices.
• Identify ways in which the environment functions as an essential component of curriculum.
• Demonstrate how curriculum and environment can be designed and adapted for children’s unique and individual ages, stages, and needs.
• Identify ways in which development in all domains and learning in all content areas can be integrated across the curriculum.

Content and Topics:
• Developmental theory as it applies to curriculum development
• Observation and assessment strategies as they apply to curriculum planning and evaluation
• Effective use of learning centers and integrated curriculum
• Content areas (math, science, literacy, social studies, creative arts)
• The development of the “whole child” (physical, cognitive, and social/emotional development, including socialization, self-regulation, self-help skills for all children)

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:
• Assess early childhood settings, curriculum, and teaching strategies utilizing indicators of quality early childhood practice that support all children including those with diverse characteristics and their families.
• Examine a variety of guidance and interaction strategies to increase children’s social competence and promote a caring classroom community.
Course: Principles and Practices of Teaching Young Children - Continued

Objectives:
- Investigate various foundations and theories in the field of early childhood education as a basis for forming a personal philosophy of teaching and developing professional goals.
- Identify children’s developmental processes and describe adaptations to curriculum and environments needed to support all children.

Content and Topics:
- Play as a vehicle for development and learning
- Characteristics and roles of an effective teacher in an early childhood setting
- Importance of positive teacher-child relationships and interactions
- The influence of environment on behavior and learning (environment as third teacher)

Course: Observation and Assessment

Student Learning Outcomes:
- Compare the purpose, value and use of formal and informal observation and assessment strategies.

Objectives:
- Use observation tools to identify quality in play-based environment, curriculum, and care routines, and to detect trends and anomalies in individuals and groups.
- Demonstrate and apply knowledge of developmental domains to interpret observations.

Content and Topics:
- National and State standards for learning and assessment (e.g., NAEYC’s position statement on assessment)
- Utilization of observation and assessment data to create appropriate curricula and environments
- Observation as part of the on-going process of curriculum and planning that support all children

Course: Practicum-Field Experience

Student Learning Outcomes:
- Integrate understanding of children’s development and needs to create and maintain healthy, safe, respectful, supportive and challenging learning environments for all children.

Objectives:
- Analyze classroom space and daily routines in terms of their effect on the behavior and interactions of children and teachers.
- Integrate content areas and opportunities for development across the curriculum.

Content and Topics:
- Content Area:
  - Science
- Environment as a teaching and learning tool
- California State Learning Standards and tools
Science – Learning Experience 10:

**Course: Child, Family and Community**

Student Learning Outcomes:
- Identify and evaluate community support services and agencies available to families and children.

Objectives:
- Identify appropriate community resources that support children and families including at risk populations.

Content and Topics:
- Community agencies, referral systems, procedures and availability of specialized services and support for families and children including at-risk populations

**Course: Introduction to Curriculum**

Student Learning Outcomes:
- Recognize developmentally appropriate teaching strategies and apply them in supervised settings for young children.
- Demonstrate an understanding of the many aspects of the teachers’ role in early childhood programs.

Objectives:
- Demonstrate ability to select safe and appropriate materials and equipment.
- Identify ways in which development in all domains and learning in all content areas can be integrated across the curriculum.

Content and Topics:
- Effective use of learning centers and integrated curriculum
- Content areas (math, science, literacy, social studies, creative arts)
- The development of the “whole child” (physical, cognitive, and social/emotional development, including socialization, self-regulation, self-help skills for all children)
- The Role of the ECE teacher

**Course: Principles and Practices of Teaching Young Children**

Student Learning Outcomes:
- Assess early childhood settings, curriculum, and teaching strategies utilizing indicators of quality early childhood practice that support all children including those with diverse characteristics and their families.

Objectives:
- Identify components of a play-based curriculum which is developmentally, culturally and linguistically appropriate and supports the development of all young children.

Content and Topics:
- The importance of developmentally, culturally, linguistically appropriate practice
- The influence of environment on behavior and learning (environment as third teacher)
- Quality indicators of programs (e.g., accreditation, assessment tools)
Course: Practicum-Field Experience

Student Learning Outcomes:
• Integrate understanding of children’s development and needs to create and maintain healthy, safe, respectful, supportive and challenging learning environments for all children.

Objectives:
• Integrate content areas and opportunities for development across the curriculum.
• Present and evaluate a variety of developmentally, culturally and linguistically appropriate play-based learning experiences.

Content and Topics:
• Application of developmentally, culturally, and linguistically appropriate practices
• Typical teaching and non-teaching activities in early childhood settings
• California State Learning Standards and tools

Science – Learning Experience 11:

Course: Introduction to Curriculum

Student Learning Outcomes:
• Recognize developmentally appropriate teaching strategies and apply them in supervised settings for young children.
• Demonstrate an understanding of the many aspects of the teachers’ role in early childhood programs.

Objectives:
• Identify ways in which development in all domains and learning in all content areas can be integrated across the curriculum.

Content and Topics:
• Innovative and best practices in teaching
• Effective use of learning centers and integrated curriculum
• The development of the “whole child” (physical, cognitive, and social/emotional development, including socialization, self-regulation, self-help skills for all children)

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:
• Assess early childhood settings, curriculum, and teaching strategies utilizing indicators of quality early childhood practice that support all children including those with diverse characteristics and their families.

Objectives:
• Investigate various foundations and theories in the field of early childhood education as a basis for forming a personal philosophy of teaching and developing professional goals.

Content and Topics:
• Addressing the needs of the “whole child” in the (physical, cognitive, social-emotional)
• Characteristics and roles of an effective teacher in an early childhood setting
Course: Practicum-Field Experience

Student Learning Outcomes:
• Integrate understanding of children’s development and needs to create and maintain healthy, safe, respectful, supportive and challenging learning environments for all children.

Objectives:
• Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.
• Integrate content areas and opportunities for development across the curriculum.

Content and Topics:
• Content Areas:
  o Literacy
  o Math
  o Science
• Integration of content areas across Curriculum
• California State Learning Standards and tools

Science – Learning Experience 12:

Course: Child Growth and Development

Student Learning Outcomes:
• Identify and compare major theoretical frameworks related to the study of human development.

Objectives:
• Demonstrate knowledge of the physical, social/emotional, cognitive and language development of children, both typical and atypical, in major developmental stages.

Content and Topics:
• Major current and historical theoretical frameworks of child development

Course: Health, Safety and Nutrition

Student Learning Outcomes:
• Analyze the nutritional needs of children at various ages and evaluate the relationship between healthy development and nutrition.

Objectives:
• Differentiate the nutritional needs of various ages of children and plan economical and nutritional meals and snacks based on the individual needs of children.

Content and Topics:
• Promoting good health including responsibilities of teacher as role model of best health, safety and nutrition practices
Course: Practicum-Field Experience

Student Learning Outcomes:
• Integrate understanding of children’s development and needs to create and maintain healthy, safe, respectful, supportive and challenging learning environments for all children.

Objectives:
• Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.
• Integrate content areas and opportunities for development across the curriculum.

Content and Topics:
• Content Areas
  a. Language
  b. Literacy
  c. Math
  d. Science
  e. Social Studies
  f. Visual and performing arts
• Integration of content areas across Curriculum
Overview of the Alignment Document Learning Experience

Course: Introduction to Curriculum

Student Learning Outcomes:
• Demonstrate an understanding of the many aspects of the teachers’ role in early childhood programs.
• Identify play-based curriculum models and approaches, standards for early learning, and indicators of quality.

Objectives:
• Identify and evaluate teaching behaviors for research-based best practices.
• Identify ways in which development in all domains and learning in all content areas can be integrated across the curriculum.

Content and Topics:
• Standards from legislation and accrediting groups
• Use of current research
• Content areas (math, science, literacy, social studies, creative arts)
• The development of the “whole child” (physical, cognitive, and social/emotional development, including socialization, self-regulation, self-help skills for all children)
• The Role of the ECE teacher

Course: Principles and Practices of Teaching Young Children

Student Learning Outcomes:
• Interpret best and promising teaching and care practices as defined within the field of early care and education’s history, range of delivery systems, program types and philosophies and ethical standards.

Objectives:
• Investigate various foundations and theories in the field of early childhood education as a basis for forming a personal philosophy of teaching and developing professional goals.

Content and Topics:
• Addressing the needs of the “whole child” (physical, cognitive, social-emotional)
• Quality indicators of programs (e.g., accreditation, assessment tools)

Course: Practicum-Field Experience

Student Learning Outcomes:
• Integrate understanding of children’s development and needs to create and maintain healthy, safe, respectful, supportive and challenging learning environments for all children.
• Critically assess one’s own teaching experiences to guide and inform practice.
Course: Practicum-Field Experience - Continued

Objectives:
• Assume teaching and non-teaching responsibilities and demonstrate developmentally appropriate practices in an early childhood classroom.
• Incorporate current research and understanding of developmental theories into the selection of learning materials and experiences for young children.

Content and Topics:
• Professional development skills
• Integration of content areas across Curriculum
• Environment as a teaching and learning tool
• State qualifications
• California State Learning Standards and tools
### Appendix B

#### History–Social Science

**Self and Society**

<table>
<thead>
<tr>
<th>1.0 Culture and Diversity</th>
<th>2.0 Relationships</th>
<th>3.0 Social Roles and Occupations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>At around 48 months of age</strong></td>
<td><strong>At around 60 months of age</strong></td>
<td><strong>Play familiar adult social roles and occupations (such as parent, teacher, and doctor) consistent with their developing knowledge of these roles.</strong></td>
</tr>
<tr>
<td>1.1 Exhibit developing cultural, ethnic, and racial identity and understand relevant language and cultural practices. Display curiosity about diversity in human characteristics and practices, but prefer those of their own group.</td>
<td>2.1 Understand the mutual responsibilities of relationships; take initiative in developing relationships that are mutual, cooperative, and exclusive.</td>
<td>3.1 Exhibit more sophisticated understanding of a broader variety of adult roles and occupations, but uncertain how work relates to income.</td>
</tr>
</tbody>
</table>

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## Becoming a Preschool Community Member (Civics)

### 1.0 Skills for Democratic Participation

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Identify as members of a group, participate willingly in group activities, and begin to understand and accept responsibility as group members, although assistance is required in coordinating personal interests with those of others.</td>
<td>1.1 Become involved as responsible participants in group activities, with growing understanding of the importance of considering others' opinions, group decision making, and respect for majority rules and the views of group members who disagree with the majority.</td>
</tr>
</tbody>
</table>

### 2.0 Responsible Conduct

| 2.1 Strive to cooperate with group expectations to maintain adult approval and get along with others. Self-control is inconsistent, however, especially when children are frustrated or upset. | 2.1 Exhibit responsible conduct more reliably as children develop self-esteem (and adult approval) from being responsible group members. May also manage others' behavior to ensure that others also fit in with group expectations. |

### 3.0 Fairness and Respect for Other People

| 3.1 Respond to the feelings and needs of others with simple forms of assistance, sharing, and turn-taking. Understand the importance of rules that protect fairness and maintain order. | 3.1 Pay attention to others' feelings, more likely to provide assistance, and try to coordinate personal desires with those of other children in mutually satisfactory ways. Actively support rules that protect fairness to others. |

### 4.0 Conflict Resolution

| 4.1 Can use simple bargaining strategies and seek adult assistance when in conflict with other children or adults, although frustration, distress, or aggression also occurs. | 4.1 More capable of negotiating, compromising, and finding cooperative means of resolving conflict with peers or adults, although verbal aggression may also result. |
### Sense of Time (History)

#### 1.0 Understanding Past Events

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Recall past experiences easily and enjoy hearing stories about the past, but require adult help to determine when past events occurred in relation to each other and to connect them with current experience.</td>
<td>1.1 Show improving ability to relate past events to other past events and current experiences, although adult assistance continues to be important.</td>
</tr>
</tbody>
</table>

#### 2.0 Anticipating and Planning Future Events

| 2.1 Anticipate events in familiar situations in the near future, with adult assistance. | 2.1 Distinguish when future events will happen, plan for them, and make choices (with adult assistance) that anticipate future needs. |

#### 3.0 Personal History

| 3.1 Proudly display developing skills to attract adult attention and share simple accounts about recent experiences. | 3.1 Compare current abilities with skills at a younger age and share more detailed autobiographical stories about recent experiences. |

#### 4.0 Historical Changes in People and the World

| 4.1 Easily distinguish older family members from younger ones (and other people) and events in the recent past from those that happened “long ago,” although do not readily sequence historical events on a timeline. | 4.1 Develop an interest in family history (e.g., when family members were children) as well as events of “long ago,” and begin to understand when those events occurred in relation to each other. |

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# Sense of Place
**(Geography and Ecology)**

## 1.0 Navigating Familiar Locations

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Identify the characteristics of familiar locations such as home and school, describe objects and activities associated with each, recognize the routes between them, and begin using simple directional language (with various degrees of accuracy).</td>
<td>1.1 Comprehend larger familiar locations, such as the characteristics of their community and region (including hills and streams, weather, common activities) and the distances between familiar locations (such as between home and school), and compare their home community with those of others.</td>
</tr>
</tbody>
</table>

## 2.0 Caring for the Natural World

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Show an interest in nature (including animals, plants, and weather) especially as children have direct experience with them. Begin to understand human interactions with the environment (such as pollution in a lake or stream) and the importance of taking care of plants and animals.</td>
<td>2.1 Show an interest in a wider range of natural phenomena, including those not directly experienced (such as snow for a child living in Southern California), and are more concerned about caring for the natural world and the positive and negative impacts of people on the natural world (e.g., recycling, putting trash in trash cans).</td>
</tr>
</tbody>
</table>

## 3.0 Understanding the Physical World Through Drawings and Maps

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 Can use drawings, globes, and maps to refer to the physical world, although often unclear on the use of map symbols.</td>
<td>3.1 Create their own drawings, maps, and models; are more skilled at using globes, maps, and map symbols; and use maps for basic problem solving (such as locating objects) with adult guidance.</td>
</tr>
</tbody>
</table>
### Marketplace (Economics)

#### 1.0 Exchange

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.1</strong> Understand ownership, limited supply, what stores do, give-and-take, and payment of money to sellers. Show interest in money and its function, but still figuring out the relative value of coins.</td>
<td><strong>1.1</strong> Understand more complex economic concepts (e.g., bartering; more money is needed for things of greater value; if more people want something, more will be sold).</td>
</tr>
</tbody>
</table>

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## Science

### Scientific Inquiry

### 1.0 Observation and Investigation

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Demonstrate curiosity and raise simple questions about objects and events in their environment.</td>
<td>1.1 Demonstrate curiosity and an increased ability to raise questions about objects and events in their environment.</td>
</tr>
<tr>
<td>1.2 Observe objects and events in the environment and describe them.</td>
<td>1.2 Observe objects and events in the environment and describe them in greater detail.</td>
</tr>
<tr>
<td>1.3 Begin to identify and use, with adult support, some observation and measurement tools.</td>
<td>1.3 Identify and use a greater variety of observation and measurement tools. May spontaneously use an appropriate tool, though may still need adult support.</td>
</tr>
<tr>
<td>1.4 Compare and contrast objects and events and begin to describe similarities and differences.</td>
<td>1.4 Compare and contrast objects and events and describe similarities and differences in greater detail.</td>
</tr>
<tr>
<td>1.5 Make predictions and check them, with adult support, through concrete experiences.</td>
<td>1.5 Demonstrate an increased ability to make predictions and check them (e.g., may make more complex predictions, offer ways to test predictions, and discuss why predictions were correct or incorrect).</td>
</tr>
<tr>
<td>1.6 Make inferences and form generalizations based on evidence.</td>
<td>1.6 Demonstrate an increased ability to make inferences and form generalizations based on evidence.</td>
</tr>
</tbody>
</table>

1. Other related scientific processes, such as classifying, ordering, and measuring, are addressed in the foundations for mathematics.

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2.0 Documentation and Communication

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Record observations or findings in various ways, with adult assistance, including pictures, words (dictated to adults), charts, journals, models, and photos.</td>
<td>2.1 Record information more regularly and in greater detail in various ways, with adult assistance, including pictures, words (dictated to adults), charts, journals, models, photos, or by tallying and graphing information.</td>
</tr>
<tr>
<td>2.2 Share findings and explanations, which may be correct or incorrect, with or without adult prompting.</td>
<td>2.2 Share findings and explanations, which may be correct or incorrect, more spontaneously and with greater detail.</td>
</tr>
</tbody>
</table>

Physical Sciences

1.0 Properties and Characteristics of Nonliving Objects and Materials

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Observe, investigate, and identify the characteristics and physical properties of objects and of solid and nonsolid materials (size, weight, shape, color, texture, and sound).</td>
<td>1.1 Demonstrate increased ability to observe, investigate, and describe in greater detail the characteristics and physical properties of objects and of solid and nonsolid materials (size, weight, shape, color, texture, and sound).</td>
</tr>
</tbody>
</table>

2.0 Changes in Nonliving Objects and Materials

| 2.1 Demonstrate awareness that objects and materials can change; explore and describe changes in objects and materials (rearrangement of parts; change in color, shape, texture, temperature). | 2.1 Demonstrate an increased awareness that objects and materials can change in various ways. Explore and describe in greater detail changes in objects and materials (rearrangement of parts; change in color, shape, texture, form, and temperature). |
### 2.0 Changes in Nonliving Objects and Materials (continued)

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>At around 48 months of age</td>
<td><strong>2.2</strong> Observe and describe the motion of objects (in terms of speed, direction, the ways things move), and explore the effect of own actions (e.g., pushing, pulling, rolling, dropping) on making objects move.</td>
</tr>
<tr>
<td>At around 60 months of age</td>
<td><strong>2.2</strong> Demonstrate an increased ability to observe and describe in greater detail the motion of objects (in terms of speed, direction, the ways things move), and to explore the effect of own actions on the motion of objects, including changes in speed and direction.</td>
</tr>
</tbody>
</table>

### Life Sciences

### 1.0 Properties and Characteristics of Living Things

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>At around 48 months of age</td>
<td><strong>1.1</strong> Identify characteristics of a variety of animals and plants, including appearance (inside and outside) and behavior, and begin to categorize them.</td>
</tr>
<tr>
<td><strong>1.2</strong> Begin to indicate knowledge of body parts and processes (e.g., eating, sleeping, breathing, walking) in humans and other animals.²</td>
<td></td>
</tr>
<tr>
<td><strong>1.3</strong> Identify the habitats of people and familiar animals and plants in the environment and begin to realize that living things have habitats in different environments.</td>
<td></td>
</tr>
<tr>
<td><strong>1.4</strong> Indicate knowledge of the difference between animate objects (animals, people) and inanimate objects. For example, expect animate objects to initiate movement and to have different insides than inanimate objects.</td>
<td></td>
</tr>
<tr>
<td>At around 60 months of age</td>
<td><strong>1.1</strong> Identify characteristics of a greater variety of animals and plants and demonstrate an increased ability to categorize them.</td>
</tr>
<tr>
<td><strong>1.2</strong> Indicate greater knowledge of body parts and processes (e.g., eating, sleeping, breathing, walking) in humans and other animals.</td>
<td></td>
</tr>
<tr>
<td><strong>1.3</strong> Recognize that living things have habitats in different environments suited to their unique needs.</td>
<td></td>
</tr>
<tr>
<td><strong>1.4</strong> Indicate knowledge of the difference between animate and inanimate objects, providing greater detail, and recognize that only animals and plants undergo biological processes such as growth, illness, healing, and dying.</td>
<td></td>
</tr>
</tbody>
</table>

² The knowledge of body parts is also addressed in the California Preschool Foundations (Volume 2) for health. In science, it also includes the knowledge of body processes. Knowledge of body parts is extended to those of humans and other animals.

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## 2.0 Changes in Living Things

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2.1</strong> Observe and explore growth and changes in humans, animals, and plants and demonstrate an understanding that living things change over time in size and in other capacities as they grow.</td>
<td><strong>2.1</strong> Observe and explore growth in humans, animals, and plants and demonstrate an increased understanding that living things change as they grow and go through transformations related to the life cycle (for example, from a caterpillar to butterfly).</td>
</tr>
<tr>
<td><strong>2.2</strong> Recognize that animals and plants require care and begin to associate feeding and watering with the growth of humans, animals, and plants.</td>
<td><strong>2.2</strong> Develop a greater understanding of the basic needs of humans, animals, and plants (e.g., food, water, sunshine, shelter).</td>
</tr>
</tbody>
</table>

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# Earth Sciences

## 1.0 Properties and Characteristics of Earth Materials and Objects

<table>
<thead>
<tr>
<th>At around 48 months of age</th>
<th>At around 60 months of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Investigate characteristics (size, weight, shape, color, texture) of earth materials such as sand, rocks, soil, water, and air.</td>
<td>1.1 Demonstrate increased ability to investigate and compare characteristics (size, weight, shape, color, texture) of earth materials such as sand, rocks, soil, water, and air.</td>
</tr>
</tbody>
</table>

## 2.0 Changes in the Earth

<table>
<thead>
<tr>
<th>2.1 Observe and describe natural objects in the sky (sun, moon, stars, clouds) and how they appear to move and change.</th>
<th>2.1 Demonstrate an increased ability to observe and describe natural objects in the sky and to notice patterns of movement and apparent changes in the sun and the moon.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2 Notice and describe changes in weather.</td>
<td>2.2 Demonstrate an increased ability to observe, describe, and discuss changes in weather.</td>
</tr>
<tr>
<td>2.3 Begin to notice the effects of weather and seasonal changes on their own lives and on plants and animals.</td>
<td>2.3 Demonstrate an increased ability to notice and describe the effects of weather and seasonal changes on their own lives and on plants and animals.</td>
</tr>
<tr>
<td>2.4 Develop awareness of the importance of caring for and respecting the environment and participate in activities related to its care.</td>
<td>2.4 Demonstrate an increased awareness and the ability to discuss in simple terms how to care for the environment, and participate in activities related to its care.</td>
</tr>
</tbody>
</table>
Appendix C
Related Links and Resources

CDE/ECE Faculty Initiative Project
http://www.wested.org/facultyinitiative

WestEd
http://www.wested.org

Instructional Guides from the Faculty Initiative Project

http://www.wested.org/facultyinitiative/pelguide.html

Instructional Guide for the California Preschool Learning Foundations, Volume 1

Instructional Guide for the California Preschool Curriculum Framework, Volume 1
http://www.wested.org/facultyinitiative/PCF/index.html

Instructional Guide for the California Preschool Learning Foundations, Volume 2
http://www.wested.org/facultyinitiative/PLFv2/index.html

Instructional Guide for the California Preschool Curriculum Framework, Volume 2

Instructional Guide for the California Preschool Learning Foundations, Volume 3
Will be made available on the Faculty Initiative Project Web site in Summer 2014

Publications


http://www.cde.ca.gov/sp/cd/re/documents/psframeworkvol2.pdf

Appendix C – Related Links and Resources

Publications – Continued


http://www.cde.ca.gov/sp/cd/re/documents/psfoundationsvol2.pdf


http://www.cde.ca.gov/sp/cd/re/documents/psenglearnersed2.pdf

Resources for the CA Preschool Curriculum Framework, Volume 1 (PCF, V1)

California Preschool Curriculum Framework, Volume 1 Order Information

Corrected Page 303 of the California Early Learning and Development System

Resources for the CA Preschool Curriculum Framework, Volume 2 (PCF, V2)

California Preschool Curriculum Framework, Volume 2 Order Information

Resources for the CA Preschool Curriculum Framework, Volume 3 (PCF, V3)

California Preschool Curriculum Framework, Volume 3 Order Information

Resources for the CA Preschool Learning Foundations, Volume 1 (PLF, V1)

California Preschool Learning Foundations, Volume 1 Order Form
http://www.cccoe.k12.ca.us/edsvcs/PDFs/cpin/2011/PLFV1OrderForm.pdf

California Preschool Learning Foundations FAQ
http://www.cde.ca.gov/sp/cd/re/psfoundationsfaq.asp

Resources for the CA Preschool Learning Foundations, Volume 2 (PLF, V2)

California Preschool Learning Foundations, Volume 2 Order Information

California Preschool Learning Foundations FAQ
http://www.cde.ca.gov/sp/cd/re/psfoundationsfaq.asp
Appendix C

Resources for the CA Preschool Learning Foundations, Volume 3 (PLF, V3)

California Preschool Learning Foundations, Volume 3 Order Information

California Preschool Learning Foundations FAQ
http://www.cde.ca.gov/sp/cd/re/psfoundationsfaq.asp

Appendix B: The Foundations – An Overview of the Alignment of the California Preschool Learning Foundations with Key Early Education Resources
http://www.cde.ca.gov/sp/cd/re/documents/preschoolfoundationsvol3.pdf#appendixb

Resources for the Preschool English Learners (PEL) Resource Guide

A World Full of Language: Supporting Preschool English Learners (DVD)


Preschool English Learners: Principles and Practices to Promote Language, Literacy, and Learning, Spanish Edition Ordering Information

Resources for Desired Results Development Profiles

Desired Results access Project
http://www.draccess.org

Desired Results System
http://www.cde.ca.gov/sp/cd/ci/desiredresults.asp

Desired Results Training and Technical Assistance Project
http://www.desiredresults.us/trainings.htm

DRDPtech CLOUD
http://desiredresults.us/form_drdp_tech.htm

Desired Results Developmental Profile – School Readiness (DRDP-SR)
http://drdpsr.org

Desired Results Developmental Profile – School Readiness Online
http://www.drdpsronline.org
Resources for the Desired Results Development Profiles – Continued

Getting to Know You Through Observation
http://www.wested.org/resources/getting-to-know-you-through-observation/

Watching My Child Grow
http://www.desiredresults.us/for_families.htm

Early Childhood Education Resources

The Alignment of the California Preschool Learning Foundations with Key Early Education Resources

Best Practices for Dual-Language Learners

California Association for the Education of Young Children (CAEYC)
http://www.caeyc.org

California Community College Early Childhood Educators (CCCECE)
https://sites.google.com/site/ccceceducators/

California Collaborative on the Social & Emotional Foundations for Early Learning (CA CSEFEL)
http://cainclusion.org/camap/cacsefel.html

California Comprehensive Early Learning Plan

California Department of Education (CDE)
http://www.cde.ca.gov

California Early Childhood Mentor Program
http://www.ecementor.org

California MAP to Inclusion & Belonging: Making Access Possible
http://www.cainclusivechildcare.org/camap

California Preschool Instructional Network (CPIN)
http://www.cpin.us

California State Advisory Council on Early Learning and Care
http://www.cde.ca.gov/sp/cd/ce/
Early Childhood Education Resources – Continued

CDE Transitional Kindergarten Implementation Guide

Center for the Study of Child Care Employment
http://www.irlc.berkeley.edu/cscce

Center on the Social and Emotional Foundations for Early Learning
http://www.vanderbilt.edu/csefel

Child Development Training Consortium (CDTC)
http://www.childdevelopment.org/cs/cdtc/print/htdocs/home.htm

Commission on Teacher Credentialing (CTC)
http://www.ctc.ca.gov

CPIN Dual Language Learners Web site
http://www.cpin.us/dlt/

Curriculum Alignment Project’s (CAP) Lower Division 8
http://www.childdevelopment.org/cs/cdtc/print/htdocs/services_cap.htm

Early Childhood Curriculum, Assessment, and Program Evaluation: Building an Effective, Accountable System in Programs for Children Birth through Age 8 Position Statement with Expanded Resources by the National Association for the Education of Young Children (NAEYC)
http://www.naeyc.org/positionstatements

Early Education and Support Division (formerly Child Development Division)
http://www.cde.ca.gov/re/di/or/cdd.asp

First 5 California
http://www.ccfc.ca.gov

NAEYC Resources for Early Childhood Educators as Learners

National Center for Research on Early Childhood Education
http://www.ncrece.org

Pathways to Cultural Competence Project Program Guide
California Early Childhood Educator Competencies Resources

California Early Childhood Educator Competencies

California Early Childhood Educator Competencies Mapping Tool
http://www.childdevelopment.org/cs/cip/print/htdocs/mt/home.htm

CompSAT – The Portfolio Protocol
http://www.ececompsat.org/portfolio-protocol.html

Local Quality Improvement Efforts and Outcomes Descriptive Study

Race to the Top Early Learning Challenge
http://www.cde.ca.gov/sp/rt/rttelcapproach.asp

Infant/Toddler Resources

Infant/Toddler Curriculum Framework
http://www.cde.ca.gov/sp/cd/re/itframework.asp

Infant/Toddler Learning & Development Foundations
http://www.education.ca.gov/sp/cd/re/itfoundations.asp

Infant/Toddler Learning & Development Program Guidelines

Program for Infant/Toddler Care (PITC)
http://www.pitc.org

ZERO TO THREE
http://www.zerotothree.org