

## Science

**Understanding California’s preschool children and families, universal design for learning, and partnering with families:**

- California’s Preschool Children (pp. 3–5)
- Overarching principle: “Family and community partnerships create meaningful connections” (pp. 7–8)
- Overarching principle: “Individualization of learning includes all children” (p. 8)

Science: Unit 3, Key Topic 4

<http://facultyinitiative.wested.org/>

2

## Science

### **Understanding California’s preschool children and families, universal design for learning, and partnering with families:**

- Overarching principle: “Responsiveness to culture and language supports children’s learning” (pp. 8–9)
- Universal Design for Learning (p. 14)
- “Partnering with families in curriculum planning” (p. 35)

Science: Unit 3, Key Topic 4

<http://facultyinitiative.wested.org/>

3

## Science

### **California’s state preschools include children who:**

- Are ethnically and culturally diverse.
- Speak languages other than English.
- Have different abilities.
- Come from diverse socioeconomic backgrounds.

*(California Preschool Curriculum Framework, Volume 3, pages 3-5)*

Science: Unit 3, Key Topic 4

<http://facultyinitiative.wested.org/>

4



2014 CALIFORNIA CHILDREN'S REPORT CARD

CHILDREN NOW  
CHILDRENNOW.ORG

2014  
**CALIFORNIA CHILDREN'S REPORT CARD**

HOW KIDS ARE DOING IN OUR STATE AND WHAT NEEDS TO BE DONE ABOUT IT

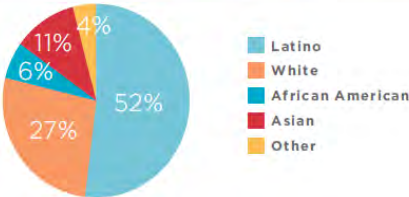
CHILDREN NOW  
CHILDRENNOW.ORG

Science: Unit 3, Key Topic 4 <http://facultyinitiative.wested.org/> 5

## CALIFORNIA'S CHILDREN

California is home to 9.3 million children, ages birth-to-18, 13% of the total child population in the United States.<sup>1</sup>

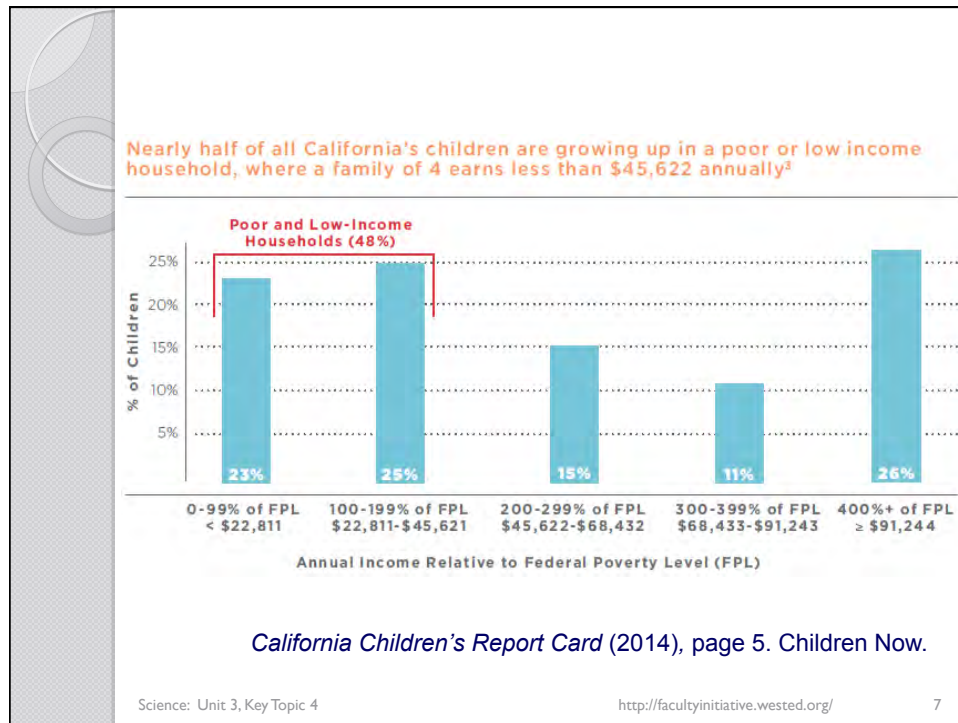
California's children are racially and ethnically diverse<sup>2</sup>



Race/Ethnicity	Percentage
Latino	52%
White	27%
African American	11%
Asian	6%
Other	4%

*California Children's Report Card (2014), page 5. Children Now.*

Science: Unit 3, Key Topic 4 <http://facultyinitiative.wested.org/> 6



## 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  
California Children's Report Card (2014). Children Now.

Science: Unit 3, Key Topic 4 <http://facultyinitiative.wested.org/> 8

## Science

### Universal Design for Learning

- Provides for multiple means of representation, multiple means of engagement, and multiple means of expression.



*California Preschool Curriculum Framework, Volume 3 (page 14)*

Science: Unit 3, Key Topic 4

<http://facultyinitiative.wested.org/>

9

## Science

### Multiple means of representation

- Providing information in a variety of ways to meet the learning needs of all children

### Multiple means of expression

- Allowing children to use alternative ways to communicate or demonstrate what they know or what they are feeling

### Multiple means of engagement

- Offering choices in the setting or program that facilitate learning by building on children's interests

*California Preschool Curriculum Framework, Volume 3 (page 14)*

Science: Unit 3, Key Topic 4

<http://facultyinitiative.wested.org/>

10

## Science

- A teacher might need to hold a hand lens steady for a child. (*California Preschool Curriculum Framework, Volume 3, p. 159*)
- Children record their observations with drawings, verbal or sign language dictations, or with communication devices. (pp. 168, 169)
- Provide accommodations for children with physical disabilities to explore a variety of objects and materials in their environments. (p.180)

Science: Unit 3, Key Topic 4

<http://facultyinitiative.wested.org/>

11

## Science

- Children can be encouraged to observe changes in plants' growth and "communicate their observations and ideas verbally or by drawing, pointing, or acting with their bodies." (*California Preschool Curriculum Framework, Volume 3, p. 208*)
- When searching for earth materials in nature, there should be consideration "made for children with special needs through assistance by teachers or peers or adaptation of materials so they are able to fully participate and make observations." (p. 218)

Science: Unit 3, Key Topic 4

<http://facultyinitiative.wested.org/>

12

## Science

- Review the vignette.
- Identify any elements of universal design for learning that the teacher used.
- Think of other ways that universal design could be incorporated.

Science: Unit 3, Key Topic 4

<http://facultyinitiative.wested.org/>

13

## Science

- What images, words, or phrases are going through your head?
- What did you find easy in identifying examples of universal design for learning in your vignette and including examples in your presentation? What was more challenging?

Science: Unit 3, Key Topic 4

<http://facultyinitiative.wested.org/>

14

## Science

- What are some insights about universal design for learning that you learned from preparing your presentation? From your classmates' presentations?
- Where do you need more practice or support in applying universal design for learning in science? How could you obtain these?

Science: Unit 3, Key Topic 4

<http://facultyinitiative.wested.org/>

15

## Science

- What information from the presenter(s) caught your attention or stood out for you?
- What ideas or strategies seemed familiar? Which ones were new?
- What are some key messages or different perspectives that you are taking away from this presentation?

Science: Unit 3, Key Topic 4

<http://facultyinitiative.wested.org/>

16



## Science

- What supports do you need to more fully implement the universal design for learning concepts to ensure that all children in your program have access to the science curriculum?
- What are some steps you can take to obtain these supports?

Science: Unit 3, Key Topic 4

<http://facultyinitiative.wested.org/>

17

## Science



“Individualization of learning includes all children.”

Overarching principle, *California Preschool Curriculum Framework, Volume 3 (page 8)*

Science: Unit , Key Topic 4

<http://facultyinitiative.wested.org/>

18

## Science

- Temperament
- Family and cultural experiences
- Language experiences
- Personal strengths
- Interests
- Abilities
- Dispositions

Science: Unit 3, Key Topic 4

<http://facultyinitiative.wested.org/>

19

## Science

- What did you notice when looking for examples of individualization in the interactions and strategies? What stood out for you?
- What individualization strategies do you feel most confident in being able to use? Which ones might be more difficult?

Science: Unit 3, Key Topic 4

<http://facultyinitiative.wested.org/>

20

## Science

- Which individualization practices seem the most critical to support children’s learning in science?
- What are three new individualization practices that you will use in your teaching of science?

Science: Unit 3, Key Topic 4

<http://facultyinitiative.wested.org/>

21

## Science

“Family and community partnerships create meaningful connections.”



*California Preschool Curriculum Framework, Volume 3 (pages 7-8)*

Science: Unit 3, Key Topic 4

<http://facultyinitiative.wested.org/>

22

## Science

### Engaging Families

- What words or images caught your attention?
- What approaches would you feel comfortable using? Which topic or substrand areas do you feel more confident in discussing with families? What concerns do you have?

Science: Unit 3, Key Topic 4

<http://facultyinitiative.wested.org/>

23

## Science

### Engaging Families

- What are some new insights that are emerging for you as you think about engaging families in supporting their children's learning science concepts and skills?
- What will you do differently in your communications and interactions with families?

Science: Unit 3, Key Topic 4

<http://facultyinitiative.wested.org/>

24

## Science



- What are some ideas, concepts, or strategies that you learned from this class session?
- Which ones reinforced what you have already learned or experienced? Which ones were new or caused you to think differently about teaching preschool children and/or engaging their families?

Science: Unit 3, Key Topic 4

<http://facultyinitiative.wested.org/>

25

## Science



- Why do you think the content of this class session was presented the way it was? How did this approach help you understand the content? What else would have helped?
- How will you decide what to apply from this class session in your work with preschool children and/or their families? What will you do to ensure you will implement what you have decided to use?

Science: Unit 3, Key Topic 4

<http://facultyinitiative.wested.org/>

26