

## ***Mathematics:*** Using Weekly Songs, Finger Plays, or Dances to Explore the Mathematics Foundations

<b>Strands:</b>	<i>Number Sense</i>	<i>Algebra and Functions</i>	<i>Measurement</i>	<i>Geometry</i>	<i>Mathematical Reasoning</i>
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### **GETTING READY**

**Instructional Component(s):** In-Class Activity

**Strands:** This activity can be used to develop familiarity with and deepen understanding of all math strands or of individual strands.

**Focus:** Students experience a variety of ways to engage young children with the concepts and skills of the math foundations through song, rhyme, and dance.

### **AFTER PARTICIPATING IN THIS ACTIVITY**

Students will demonstrate **knowledge** and **skills** that are consistent with an increased understanding and application of the concepts addressed in this activity.

**Students will demonstrate an understanding of:**

- The foundations in mathematics, including strands, substrands, foundations, and examples of foundations (introductory understanding) (*Standards 1, 5, & 6*)\*
- Ways in which children experience mathematics in their early childhood education programs (*Standards 4 & 5*)\*
- How gaining understanding and skills in math relates to the development of language and literacy and social-emotional development (*Standard 1*)\*

**Students will be able to:**

- Identify where and how during a typical day in an early childhood setting children demonstrate knowledge and skills described in the foundations in mathematics (*Standards 1, 4, & 5*)\*
- Identify and/or develop songs, finger plays, chants, or dances that engage children with the concepts of the math foundations (*Standards 1, 4, & 5*)\*

\*See Appendix A

## ***Mathematics:*** **Using Weekly Songs, Finger Plays, or Dances to Explore the Mathematics Foundations**

### ***Before you start***

As an ongoing activity, consider having a song or dance and finger play of the week. In addition to considering which math foundations are represented in these activities, these activities present a good opportunity to consider the relation of math concepts and skills to the development of language and literacy and to social-emotional development.

Consider asking for songs in home languages as well as in English. Be sure to collect and print the songs and finger plays and document the dances so that all students can have them as resources for their teaching.

### **Getting it started**

Ask students to bring to class a song, finger play, chant, or dance that will engage young children with the concepts of the math foundations. Students could be assigned to bring these to class individually or in pairs and assigned to a particular class session during which they will demonstrate the activity.

Remind students to find songs, finger plays, or dances that involve the five strands of the math foundations. Ask them to find songs, finger plays, or dances that involve counting, measuring, shapes, patterns, grouping, or solving a problem. They could be assigned to particular strands or bring in something that relates to any strand. Over time, it would be helpful to be sure that all strands have been included in what the students are bringing to class.

### **Putting it together**



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The students' examples can be used to demonstrate the prevalence of math concepts in music, dance, and finger plays. Try to encourage dance, music, and finger plays in several languages and from a variety of cultural communities if they are represented in your students or in the children with whom they will likely be working.

Students sometimes find it challenging to recognize math concepts in dance or music, so ask students where they could see patterning, counting, repetition, use of spatial relations, use of size and shape, and mathematical reasoning in the music and dances.

You may find it helpful to ask students to reflect on what they have heard or seen and describe the specific foundations that are experienced in a specific piece of music, rhyme or movement. You may also want to ask students to explain or consider why a song, finger play or dance might be more appropriate for younger or older preschool children.

**Taking it further**

If any students are involved in groups that do traditional music or dances of their home culture, ask if they could demonstrate the music or some of those dances.

If there is no one in the class who can do this, ask students in pairs to invent a dance or movement that incorporates some of these math components, such as counting, patterns, and repetitions. Emphasize that students should design this dance to be used with preschool children.