

Professional Development Series

Series 3 Mathematics in Everyday Life

The *Math Can Take You Places* “Mathematics in Everyday Life” training is designed to be approximately one hour in length. The length can vary according to time constraints and participation.

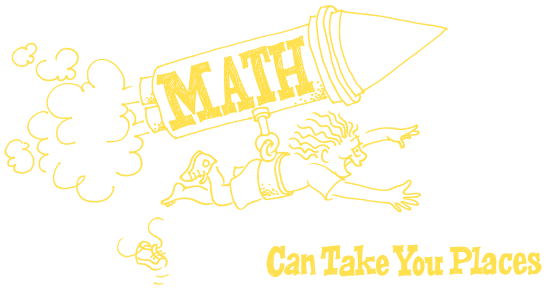
To begin and end the session, use your own icebreaker/introductory/conclusion activity or choose one from the *Math Can Take You Places* Icebreaker/Introductory/Conclusion Ideas list. You may also want to begin the sessions by sharing an overview of the *Math Can Take You Places* curriculum toolkit.

► Materials

- Copies of the state or national mathematics standards (one per group depending on the focus grade levels of the training; possibly ask participants to bring their own copies)
- Markers
- Chart paper (one page per group)
- Copies of the Mathematics in Everyday Life “Focus Questions” handout
- Copies of the Mathematics in Everyday Life “Conceptual Highlights” handout
- Copies of the Mathematics in Everyday Life “Implementation Strategies” handout
- *Math Can Take You Places* Professional Development Series “Mathematics in Everyday Life” video
- Optional: PDF slideshow “Mathematics in Everyday Life”

► Preparation

- Gather the materials listed above.
- Make copies of the three handouts needed.
- Prepare to play the video.



- Ask participants in advance to bring copies of the state standards to use during the training.
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► **Introductions/Icebreaker** (5-6 minutes) *Slide 2*

► **Session Goals** (2 minutes) *Slide 3*

- Investigate how real-life mathematics can enhance instruction and student learning.
 - Explore lesson planning tips for incorporating real-life mathematics and establishing relevance.
 - Share professional expertise.
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► **Focus Statement/Question** (5 minutes) *Slide 4*

Ask the participants the following questions:

If you were to ask your students, “What is the purpose of learning mathematics?” What do you think they would say?

How does establishing relevance enhance instruction in the mathematics classroom?

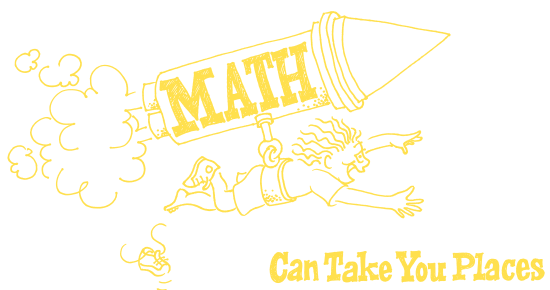
► **Video Focus** (5 minutes) *Slide 5*

Say, “We are going to watch a short video that highlights ways to emphasize everyday applications of math with students. As you watch, think of ways you already make these types of connections in your lessons.”

Show the *Math Can Take You Places* Professional Development Series “Mathematics in Everyday Life” video.

► **Group Activity I “Conceptual Highlights”**
(10 minutes) *Slide 6*

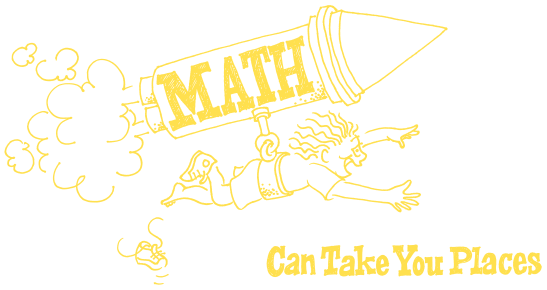
- I. Divide the participants into small groups of 3 to 5, by grade level if possible. If the participants are mostly administrators, allow the group to choose a grade level to focus on for the activity.



2. Assign one of the math concepts mentioned in the video to each grade level group. The concepts are listed below and on the “Conceptual Highlights” handout.
 - *Computation and Estimation*
 - *Measurement and Geometry*
 - *Statistics and Data Analysis*
 - *Proportions and Reasonableness*
 - *Problem Solving and Using Mathematical Tools*
3. Ask the groups to briefly review the math standards to see how each of these concepts looks at their assigned grade level. Then, ask them to list general ideas they already have about how to connect these concepts to the students’ everyday lives.

► **Group Activity 2 “Implementation Strategies”**
(20 minutes) *Slide 7*

1. Allow each group to choose one of the “Conceptual Highlights” topics to use as their focus area for this activity. Make sure that a group covers each of the concepts.
2. Each group will generate a list of lesson planning ideas, using the tips given in the “Mathematics in Everyday Life” video as a guide. Under each of the tips, the group will write a creative suggestion for how to implement the suggestions, focusing on their concept area. The tips are listed below and on the “Implementation Strategies” handout:
 - Establish a purpose for each concept students will learn.
 - Help students recognize mathematics in their real life.
 - Bring in speakers or create mentoring opportunities so students can see math in action.
 - Use math to introduce students to a variety of career possibilities.
 - Introduce new math concepts by posing a problem related to a real real-life situation.
3. When all the groups are finished, ask a group representative to write their best responses for each of the tips on chart paper and select a spokesperson to present their ideas to the large group.
4. Bring the large group back together. Allow the presenters to share their responses.



► **Closure** (5 minutes)

Display the last slide or write the following question on a piece of chart paper. Ask participants to brainstorm:

“How can we, as a mathematics department or team, ensure that students at our school are learning that mathematics is an important part of everyday life?”

Ask for a few volunteers to share their responses.

► **Evaluation** (Optional)