

Teaching with Math and Me! Math on a Trip

Connection to Standards

Students will recognize the attributes of length, volume, weight, area, and time. (NCTM)

Differentiation for ESL

• Review these additional vocabulary words in context: *trip, visit, distance, miles, change*



Lexile: 480 Words: 298

- Allow students to complete word maps for any term for which Word they have limited understanding. Have students say or write the definition in their own words and think of words related to the term.
- Have students sit with a partner while reading. After each page, have students discuss words and ideas they found confusing. They can refer to their word maps to try to clarify meanings. Allow partners to raise their hands for assistance.

Before Reading

Building Background Knowledge:

- If this is students' first time reading this series, explain to them that in each book they'll be reading about different ways they can use math in their everyday lives. Tell them that in this book, they'll be learning about using math when they go on a trip.
- Ask students to raise their hands if they've ever gone on a trip. Invite these students to share where they went, how they got there, and how they used numbers during the trip.

Preview:

- Show the cover of the book. Explore the cover photo. Ask students to guess who the people are and what they are doing.
- Lead students on a brief picture walk of the book, exploring the photos on each page. Have students identify one or two details in each photo.

Predict: Ask students to predict some of the specific parts of a trip they will read about. Have students support their predictions with evidence they discovered while previewing the book.

Vocabulary: Turn to page 23 ("Words to Know"). Read each vocabulary word and have students raise their hands if they know the word. Call on students to define each word, then read the definition provided. Ask students to consider whether the provided definition matches their understanding of the word.

Strengthen understanding of words students do not know well by modeling how to use the word in a sentence. Create sentences with rich context clues, then review how the context clues help students understand the meaning. Have students come up with their own sentences for each word.

Skill Introduction: Write the word time on the board. Invite volunteers to raise their hands to share different units of time, writing them down as they share. By the end, you should have written *second, minute, hour, day, week, month,* and *year* on the board.

During Reading

Look for Key Details: Remind students that the main idea of the book is to describe all the ways we use math on a trip As you read each chapter, invite volunteers to share how that chapter supports the main idea. In what ways does the chapter show math being used during a trip?

Practice the Concepts: Ask students the following questions as they read.

- pp. 8–9: If your trip took only two hours, how many minutes would it take? (120)
- pp. 10–11: By 2:00 P.M., how far will you have traveled? (about 240 miles)
- **pp. 12–13:** *If a player has two strikes, how many more strikes does he need to be out?* (**One**)
- **pp. 14–15:** Your brother counts 3 yellow signs. Now how many signs did you count all together? (**25**)
- **pp. 16–17:** How many red trucks do you see? (3) How many red cars do you see? (2) How many red vehicles are there in total? (5, 3 + 2)
- **pp. 18–19:** *How much money would you have spent if each gallon of gas cost \$4? (\$40)*

After Reading

Reflection: Ask students to imagine that the family in the book took a plane to their destination instead of a car. What are some different ways they might have used math on their trip?

Skill: Have students complete the "Units of Time" worksheet on the final page.

Math on Trip Answer Key

- **1.** How many minutes are in half an hour? _____ **30** minutes
- 2. Joseph runs for 3 minutes. How many seconds does he run? $180 \text{ seconds} \quad 3 \times 60 = 180 \text{ or } 60 + 60 = 120 + 60 = 180$
- 3. Rosa goes outside to play at 4:00 and comes back home for dinner at 6:00. How many hours was she outside? How many minutes?
 2 hours 2 × 60 = 120 minutes
- 4. Sara's birthday party is in 2 weeks and 2 days. How many days away is it? <u>16 days</u>
 <u>16 days</u> <u>16 days</u> <u>16 days</u> <u>16 days</u> <u>16 days</u> <u>16 days</u> <u>16 days</u>
- 5. Ryan will turn 7 in exactly 1 ½ years. In how many months will he turn 7? ______18 months

1 year = 12 months + half year or 6 months = 18 months

Units of Time

Use the table below to answer the questions.

- **1.** How many minutes are in half an hour?
- 2. Joseph runs for 3 minutes. How many seconds does he run?
- **3.** Rosa goes outside to play at 4:00 and comes back home for dinner at 6:00. How many hours was she outside? How many minutes?
- 4. Sara's birthday party is in 2 weeks and 2 days. How many days away is it? ______
- 5. Ryan will turn 7 in exactly 1 ½ years. In how many months will he turn 7? _____

60 seconds	=	1 minute
60 minutes	=	1 hour
24 hours	=	1 day
7 days	=	1 week
52 weeks	=	1 year
12 months	=	1 year
365 days	=	1 year