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## **Dear Family,**

Welcome to *Conquering Fourth Grade*. Fourth grade will be an exciting and challenging year for your child. This book is designed to supplement the concepts your child is learning in fourth grade and to strengthen the connection between home and school. The activities in this book are based on today's standards and provide practice in reading, word study, language, writing, mathematics, social studies, and science. It also features fun, yet challenging, critical-thinking activities and games. In addition to the activity sheets in this book, the end of each section also provides engaging extension activities.

Your child should complete one unit per month, including the extension activities. This will allow your child to think about grade-level concepts over a longer period of time. This also ensures that the book can be completed in one school year.

Keep these tips in mind as you work with your child this year:

- Set aside specific times each week to work on the activities.
- Have your child complete one or two activities each time, rather than an entire unit at one time.
- Keep all practice sessions with your child positive and constructive. If the mood becomes tense or you and your child get frustrated, set the book aside and find another time to practice.
- Help your child with instructions, if necessary. If your child is having difficulty understanding what to do, work through some of the problems together.
- Encourage your child to do his or her best work, and compliment the effort that goes into learning.

Enjoy the time learning with your child during fourth grade. Summer will be here before you know it!

Sincerely,

**The Shell Education Staff**

**Directions:** Read the text, and answer the questions.

## Let the Force Be with You

What happens if you hold a pencil in your hand and then let go of it? You probably don't need to try this experiment to know that the pencil will fall to the ground. This happens because gravity is at work. Gravity is a force that pulls objects towards one another. Everything has gravity. So why are things always drawn to the ground instead of to each other? Larger objects have more gravity than smaller objects do. So Earth's pull is stronger than any other object on Earth. The sun is much larger than Earth. That means the sun's gravity is much stronger. That's the reason Earth orbits the sun. The sun's gravity pulls Earth toward it.

- 1 Would reading the first sentence help the reader preview the text?
  - A Yes. It introduces the topic.
  - B Yes. It describes what will happen.
  - C Yes. It provides a good deal of information.
  - D No. The topic sentence comes later in the text.
- 2 Which index entry would help a reader find this information?
  - A experiments
  - B gravity
  - C sun, the
  - D Earth, the
- 3 Which syllable is stressed in the word *gravity*?
  - A the first syllable
  - B the second syllable
  - C the third syllable
  - D none of the above
- 4 A synonym for *experiment* is
  - A game.
  - B test.
  - C outfit.
  - D book.
- 5 What is the author's purpose?
  - A to persuade
  - B to entertain
  - C to confuse
  - D to inform





**Directions:** Read the text, and answer the questions.

## The Choice

When school was over on Monday, Donna flew to the music room. She wanted to choose an instrument so she could play in the band. When she arrived, she said, “Hi, Mrs. Taylor. I’m here to choose an instrument.”

“I’m so glad you’re interested in the band, Donna,” said Mrs. Taylor. “Is there any instrument that particularly interests you? The flute? The violin?”

“I heard that the clarinet is easy, and I like the way it sounds,” Donna answered. “That’s the instrument I’d like.”

“Well, the clarinet isn’t especially difficult, but it takes daily practice to learn it well,” said Mrs. Taylor. “Our first band practice will be one week from today.”

- 1 Which sentence gives the best preview of the text?
  - A the first sentence
  - B the second sentence
  - C the third sentence
  - D the fourth sentence
- 2 Which words share the same suffix?
  - A *interested* and *answered*
  - B *wanted* and *instrument*
  - C *answered* and *especially*
  - D *instrument* and *trumpet*
- 3 A synonym for *difficult* is
  - A easy.
  - B simple.
  - C uncomplicated.
  - D challenging.
- 4 *Donna flew to the music room* is an example of
  - A literal language.
  - B figurative language.
  - C formal language.
  - D misleading language.

**Directions:** Write your own definition of each word. Use a dictionary if you don't know its meaning. Then, cover the word, and write it in the box.

1 lotion

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2 station

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3 vacation

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4 action

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5 location

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6 question

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7 vision

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8 decision

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**Directions:** Write the correct word to complete each sentence.

- 1 The giant couldn't \_\_\_\_\_ down fast enough.

(clime, clim, climb)

- 2 Tinker Bell was a \_\_\_\_\_.

(ferry, fairy, farely)

- 3 Someday, he'd like to sail the seven \_\_\_\_\_.

(sees, sea, seas)

- 4 You could \_\_\_\_\_ at the amazing views.

(stair, stare, start)

- 5 You \_\_\_\_\_ not want to start a forest fire!

(would, wood)

- 6 Kira and Lina like to shop the \_\_\_\_\_ in the city.

(sails, sales)

- 7 Brody hurt his knee because he was running quickly

and he \_\_\_\_\_.

(fall, fell)

**Directions:** Read the information about Beethoven. Then, complete the table.

Beethoven was a musician and composer who lived from 1770 to 1827. He composed nine symphonies and dozens of pieces of music for piano and string quartets. Beethoven was completely deaf when he composed his most important works. Students from elementary school to college study his music.

Should Beethoven’s music be taught today? Write a few notes in each column about why someone would answer “yes” or “no.”

Yes	No
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____



Writing

**Directions:** Explain why you think Beethoven’s music should or should not be taught today. Use your notes from page 41 to help you write your opinion paragraph.



Writing

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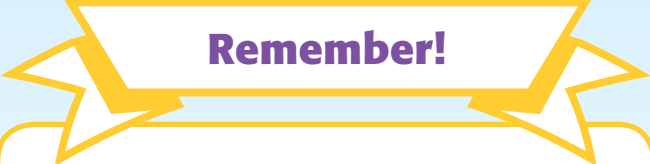
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**Remember!**

A strong opinion paragraph includes:

- an introductory sentence stating your opinion
- details that support your opinion
- a concluding sentence that restates your opinion

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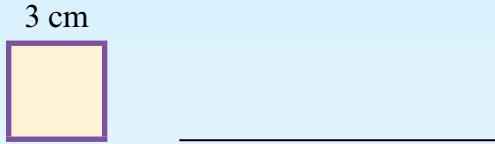
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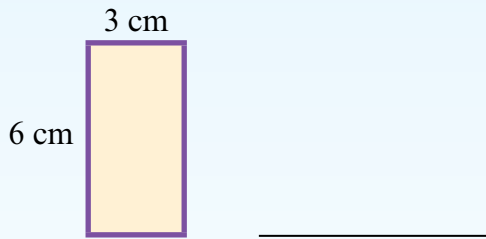
**Directions:** Solve each problem.

- 1 Calculate the perimeter of a square with 3 cm sides.

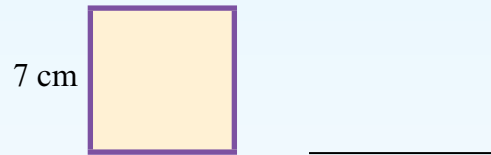


- 5 Calculate the perimeter of a regular pentagon with 3 inch sides.
- \_\_\_\_\_

- 2 Calculate the perimeter of the rectangle.



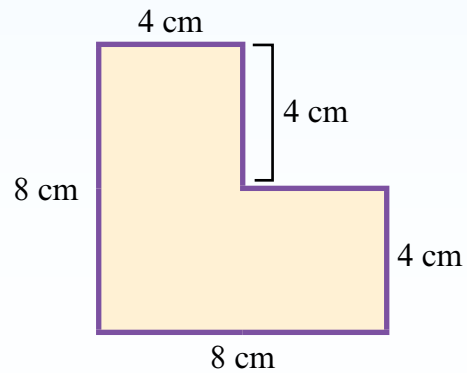
- 6 Calculate the perimeter of a square with 7 cm sides.



- 3 Calculate the perimeter of a square with 2 cm sides.



- 7 Calculate the perimeter of the object below.



- 4 Find the perimeter of a figure with these 4 sides: 3 cm, 5 cm, 7 cm, 4 cm.
- \_\_\_\_\_



**Directions:** Solve each problem.

- 1 Calculate the area of the square.

4 cm



\_\_\_\_\_

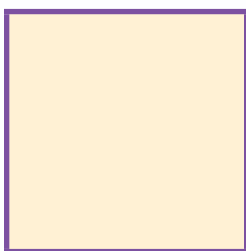
- 2 What is the area of a rectangle that measures 4 cm by 12 cm?

\_\_\_\_\_

- 3 The area of a flower bed is  $12 \text{ m}^2$  and the area of the grass is  $24 \text{ m}^2$ . What is their combined area?

\_\_\_\_\_

- 4 Calculate the area of the square.



9 cm

\_\_\_\_\_

- 5 Would you use square inches or square feet to measure the area of a bedroom?

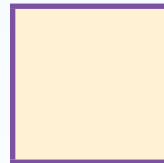
\_\_\_\_\_

- 6 My garden bed has an area of  $18 \text{ m}^2$ . I planted  $10 \text{ m}^2$  with peas. What area is left?

\_\_\_\_\_

- 7 Calculate the area of the square.

5 cm



\_\_\_\_\_

- 8 What is the area of a rectangle that measures 3 cm by 9 cm?

\_\_\_\_\_

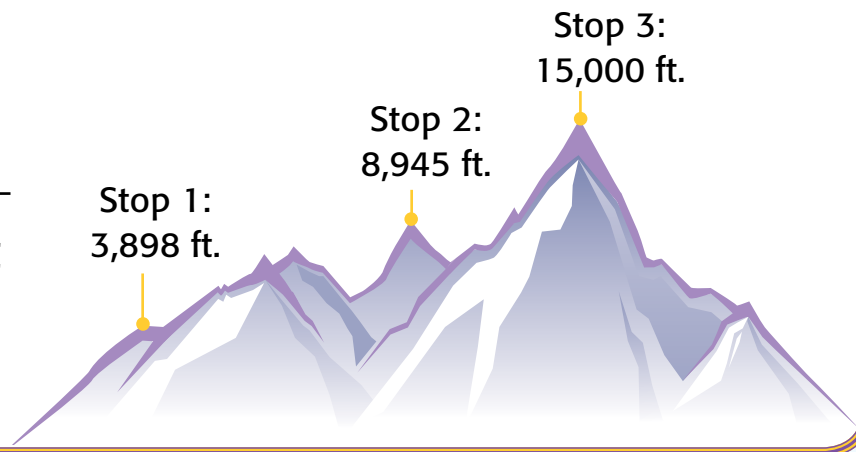
- 9 One side of a square is 10 cm. What is the area?

\_\_\_\_\_

**Directions:** Look at the example. Then, solve the problem.

**Example:** Kato wants to climb a mountain that is 15,000 feet above sea level. At the first stop, he climbs to 3,898 feet. At the second stop, Kato is 8,945 feet above sea level. How much farther must he climb to reach the top of the mountain?

$$\begin{array}{r}
 \phantom{1}9\phantom{0} \\
 4\cancel{1}\cancel{0}10 \\
 \hline
 15,000 \\
 - 8,945 \\
 \hline
 6,055 \text{ feet}
 \end{array}$$

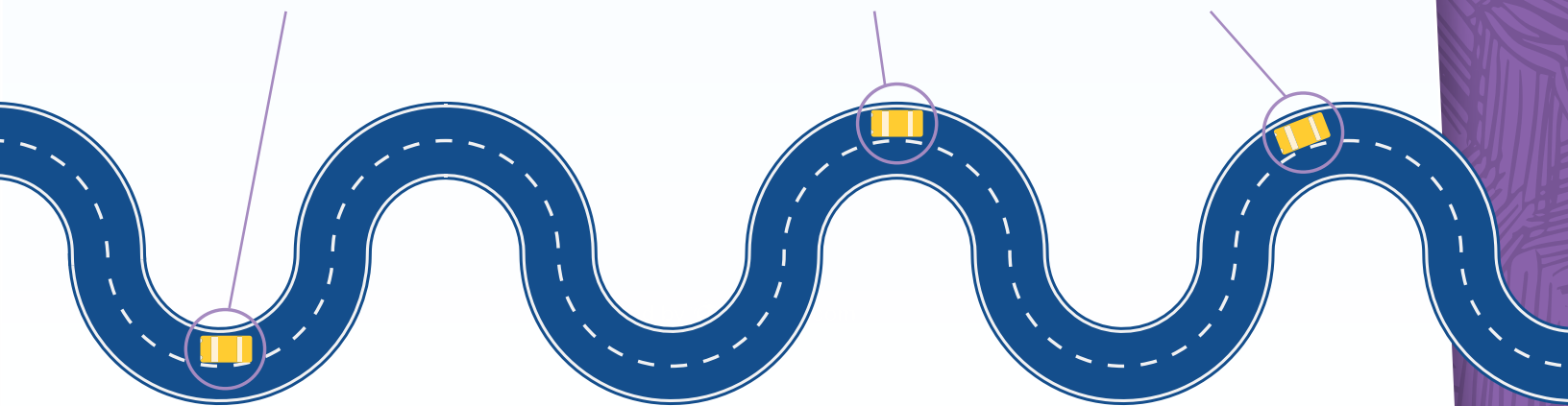


A family takes a road trip and drives a total of 2,500 kilometers. The family leaves home and drives 746 kilometers the first week. By the end of the second week, the family has driven a total of 1,894 kilometers. How many kilometers does the family drive during the third week?

Week 1:  
746 kilometers

Week 2:  
1,894 kilometers

Week 3:  
2,500 kilometers



Problem Solving

**Directions:** Two students solved a problem two different ways. Explain what error each student made.

- 1 A juicing company purchases 3,849 oranges from a local farmer. The farmer began the day with 8,186 oranges. How many oranges does the farmer have left?

Student 1	Student 2
$\begin{array}{r} 8,186 \\ - 3,849 \\ \hline 12,035 \text{ oranges} \end{array}$	$\begin{array}{r} 8,186 \\ - 3,849 \\ \hline 5,743 \text{ oranges} \end{array}$

**Student 1**

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**Student 2**

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- 2 Solve the problem. Explain your strategy.

**Directions:** Rules and laws exist to help people to live together peacefully. Make a list of the laws from your community.

1

<ul style="list-style-type: none"><li>• _____ _____</li></ul>	<ul style="list-style-type: none"><li>• _____ _____</li></ul>
<ul style="list-style-type: none"><li>• _____ _____</li></ul>	<ul style="list-style-type: none"><li>• _____ _____</li></ul>
<ul style="list-style-type: none"><li>• _____ _____</li></ul>	<ul style="list-style-type: none"><li>• _____ _____</li></ul>

2 How do these laws help people?

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**Directions:** Follow the steps in this experiment to discover how erosion works.

### What You Need

- newspaper
- two trays
- jug with spout
- water
- block
- soil

### What to Do

- 1 Cover your table with newspaper. Put soil 4 cm (1.5 in.) deep in one tray. Pat the soil down firmly so that it is level.
- 2 Put one side of the soil tray on a block so that it is on a slope. Put the empty tray under the end of the soil tray. This tray will catch the water.
- 3 Carefully pour a small stream of water into the top of the soil tray. Stop pouring when water reaches the bottom of the tray. Draw and label a diagram.

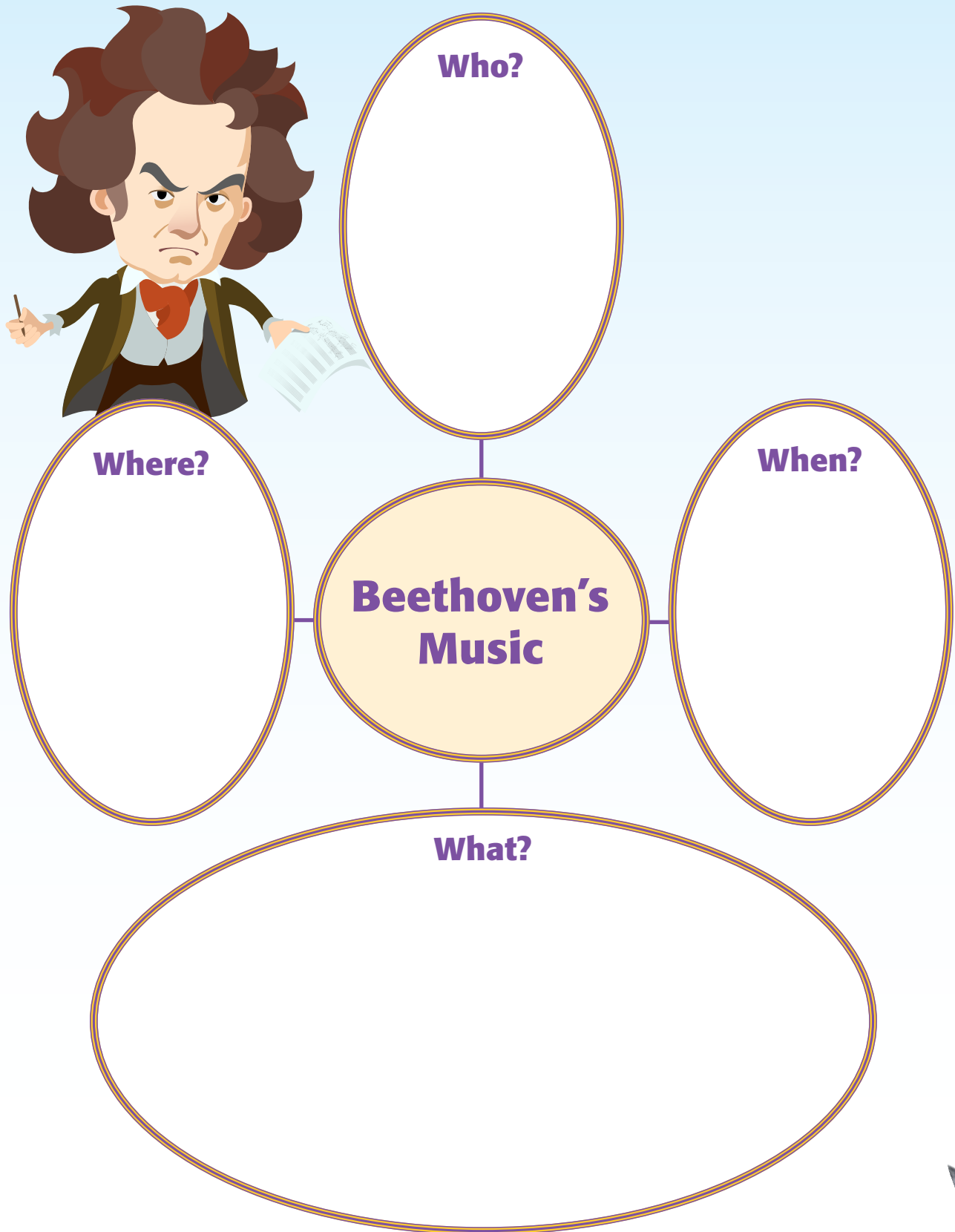


- 4 Pour more water into the tray until you notice another change. Then, draw and label a diagram.





**Directions:** How much can you recall from the text on page 41? Complete the web to show what you remember. Then, reread the text, and add details to your web in a different color.





**Directions:** Play with a partner. Take turns rolling two number cubes. One number cube represents the length of a rectangle. The other represents its width. For example, if you roll a 3 and a 4, you have a rectangle with a length of 3 units and a width of 4 units. Calculate the area of the rectangle that you rolled. Record it in the chart below. Don't forget the units! After each player has had 10 turns, add the areas you each calculated. The person with the highest total wins.

Player 1	Player 2
<b>Total:</b>	<b>Total:</b>





## Writing Activity



Review your writing on page 42. Consider what people who disagree with your opinion might say. Add points to address their arguments.

## Mathematics Activity



Estimate the area of your living room. Then, use the tape measure to measure it. Calculate the actual area. How close was your estimate?

## Problem-Solving Activity



Imagine a family trip to a place of interest. Create a word problem related to the problem on page 45. How is your word problem similar to and different from the problem on that page?

## Social Studies Activity



Choose a law from page 47. Draw a picture to show the law at work. Write a caption to explain how this law helps people live peacefully together.

## Science Activity



Review the experiment from page 48. What might happen if you changed the amount of soil, the angle of the slope, the amount of water, or another variable? Repeat the experiment, changing only one variable, and record the results.

## Listening-and-Speaking Activity



Tell a family member what you observed in the science experiment.