

# Forces and Motion

Name \_\_\_\_\_ Date \_\_\_\_\_

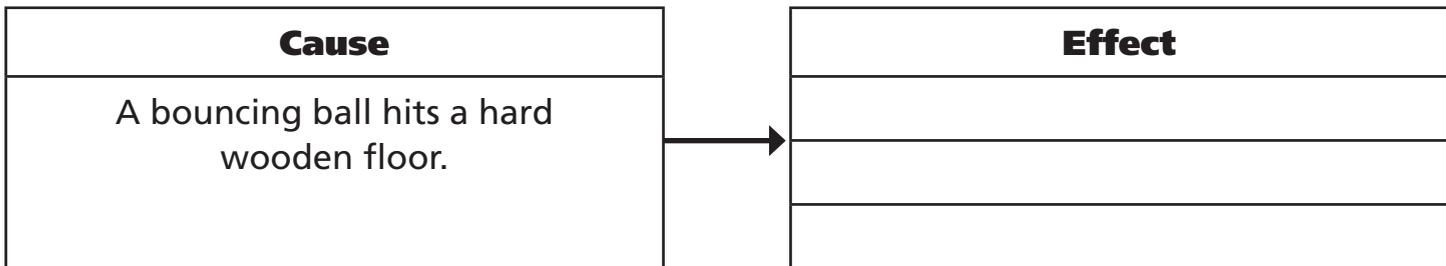
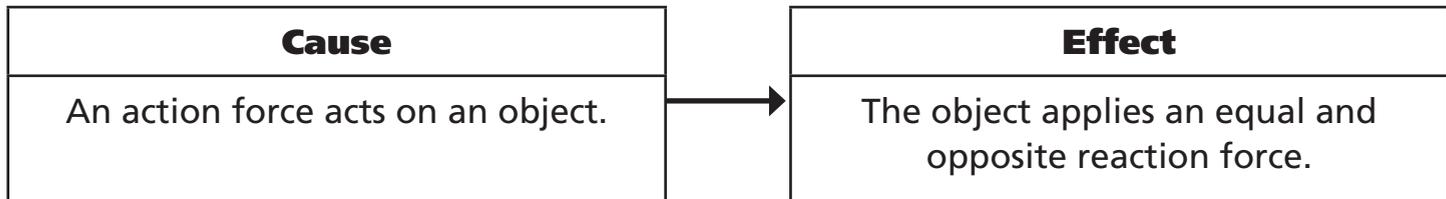
## Reading Comprehension

### CAUSE AND EFFECT

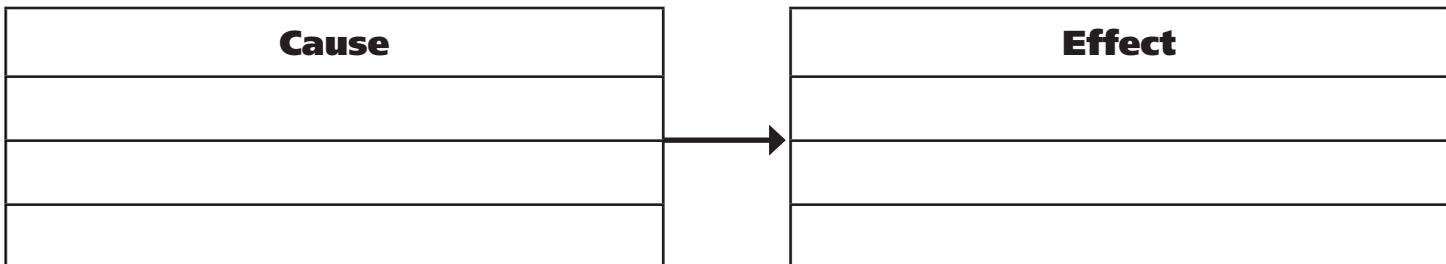
A **cause** is the reason something happens. An **effect** is what happens as a result of the cause.

1. Reread Newton's third law of motion. Then complete the second cause and effect chart.

**Newton's Third Law of Motion:** For every action force acting on an object, the object will apply an equal and opposite reaction force.



2. Now make a cause and effect chart about friction, gravity, or magnetic force. You can look back at your book to help you.



# Grammar

## POSSESSIVES

A **possessive noun** shows ownership. To make the possessive form of a noun:

- Add an **apostrophe** and -s to a singular noun.

one boy                      one boy's book

Julio                              Julio's book

- Add just an **apostrophe** to a plural noun that ends in -s.

two boys                      two boys' books

the Wilsons                      the Wilsons' books

- Add an **apostrophe** and -s to a plural noun that does not end in -s.

children                      children's books

**Write the possessive form of the noun in parentheses to complete each sentence.**

1. Sir Isaac Newton read about \_\_\_\_\_ work. (Galileo)
2. The \_\_\_\_\_ seat belts keep them safe. (riders)
3. Your mass is much less than \_\_\_\_\_ mass. (Earth)
4. Galileo and Newton added to the \_\_\_\_\_ ideas of motion by doing experiments. (Greeks)
5. When the \_\_\_\_\_ foot pushes on the ground, the ground pushes back on her foot. (skateboarder)
6. \_\_\_\_\_ first law of motion is also called the law of inertia. (Newton)
7. Tennis \_\_\_\_\_ rackets help them hit balls so that the balls accelerate very fast. (players)
8. An \_\_\_\_\_ inertia will keep it moving at the same speed and in the same direction until a net force acts on it. (object)

# Writing

Review pages 10–17 of *Forces and Motion*. Imagine you are writing for a younger child (your audience). Your purpose is to tell how your position and motion change on the way to school. Plan your writing below.

## 1. What does a younger child need to know about...

position?

motion?

speed?

velocity?

acceleration?

## 2. What are some ways my position and motion change on my way to school?

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Now use the information in the chart to help you write. Tell about several times that your position and motion change on your way to school. Remember your audience and purpose as you write.

# Vocabulary

## SYNONYMS

**Synonyms** are words that have the same or almost the same meaning.

A **stone** will sink in water.

A **rock** will sink in water.

1. For each word in the first column, find its synonym in the second column. Write the letter of the synonym on the line.

- |                   |             |
|-------------------|-------------|
| ___ 1. cause      | A. motion   |
| ___ 2. experiment | B. result   |
| ___ 3. movement   | C. equal    |
| ___ 4. effect     | D. position |
| ___ 5. unlike     | E. reason   |
| ___ 6. same       | F. length   |
| ___ 7. location   | G. opposite |
| ___ 8. distance   | H. test     |

2. Rewrite the following sentences using synonyms for the bold words.

A **gentle** kick will make a ball move slowly and **go** a short **distance**.

A **hard** kick will make that ball move quickly.

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★ List two words that are synonyms. Then write a sentence using both words. Your sentence should be about forces or motion.

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