

**Energy** ▪ *Guided Reading and Study*

# What Is Energy?

*This section explains how work, power, and energy are related. It also identifies the two basic kinds of energy.*

## Use Target Reading Skills

*Preview the figure and headings in the section before you read. Record what you already know in the graphic organizer. After you have completed the section, write several things you have learned about energy in the graphic organizer.*

What You Know

What You Learned

## Energy, Work, and Power

1. The ability to do work or cause change is called \_\_\_\_\_.

2. Why can work be thought of as the transfer of energy?

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3. What is power?

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**What Is Energy?** *(continued)*

**Kinetic Energy**

4. What are the two general kinds of energy?  
a. \_\_\_\_\_ b. \_\_\_\_\_
5. What is kinetic energy?  
\_\_\_\_\_
6. The kinetic energy of an object depends on both its \_\_\_\_\_ and its \_\_\_\_\_.
7. Kinetic energy increases as velocity \_\_\_\_\_.
8. What formula do you use to calculate kinetic energy?  
\_\_\_\_\_
9. Because velocity is squared in the kinetic energy equation, doubling an object's velocity will \_\_\_\_\_ its kinetic energy.

**Potential Energy**

10. What is potential energy?  
\_\_\_\_\_  
\_\_\_\_\_
11. What is the potential energy called that is associated with objects that can be stretched or compressed?  
\_\_\_\_\_
12. What is potential energy called that depends on height?  
\_\_\_\_\_
13. What is the formula you use to determine the gravitational potential energy of an object?  
\_\_\_\_\_
14. Is the following sentence true or false? The greater the height of an object, the greater its gravitational potential energy.  
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