Name _____ Date _____ Class _____

Friction and Gravity

Understanding Main Ideas

Answer the following questions on another sheet of paper.

1. What are the two factors that affect the friction force between two surfaces?
2. What is one way you could reduce the friction between two surfaces?
3. The acceleration due to gravity of all objects in free fall is the same. Why, then, do some objects fall through the air at a different rate than others?
4. How does mass differ from weight?
5. What two factors affect the gravitational force between two objects?

Building Vocabulary Skills

Match each term with its definition by writing the letter of the correct definition in the right column on the line beside the term in the left column.

____ **6.** friction

____ **7.** rolling friction

____ **8.** sliding friction

____ **9.** fluid friction

____ **10.** weight

____ **11.** free fall

____ **12.** gravity

____ **13.** terminal velocity

____ **14.** air resistance

a. the force that accelerates objects towards Earth

b. the kind of friction that exists between oil and a door hinge

c. the general term for the force that one surface exerts on another when they rub against each other

d. the kind of friction that slows a falling object

e. the state that exists when the only force acting on an object is gravity

f. the kind of friction that results when you rub sandpaper against wood

g. the kind of friction that results when a wheel turns on a surface

h. a measure of the force of gravity on an object

i. a falling object reaches this when forces of gravity and air resistance are balanced