

Forces ▪ *Review and Reinforce*

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.

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| _____ 6. friction | a. the force that accelerates objects towards Earth |
| _____ 7. rolling friction | b. the kind of friction that exists between oil and a door hinge |
| _____ 8. sliding friction | c. the force that one surface exerts on another when they rub against each other |
| _____ 9. fluid friction | d. the kind of friction that slows a falling object |
| _____ 10. weight | e. the state that exists when the only force acting on an object is gravity |
| _____ 11. free fall | f. the kind of friction that results when you rub sandpaper against wood |
| _____ 12. gravity | g. the kind of friction that results when a wheel turns on a surface |
| _____ 13. terminal velocity | h. a measure of the force of gravity on an object |
| _____ 14. air resistance | i. a falling object reaches this when forces of gravity and air resistance are balanced |