Name: _____ **Date:** _____

Sonic Speed: A 3rd Grade Quest into the Science of Motion

Go beyond just watching things move to identifying patterns and rates of change through a mix of real-world scenarios.

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1. Imagine a colorful snail crawling across a garden leaf. What word do scientists use to describe how its position is changing?

A. Sleeping
B. Motion
C. Weight
D. Gravity

2. If a toy car is moving at a steady pace and does not turn or speed up, its velocity is staying the same.

A. True
B. False

3. A skateboarder starts at the top of a hill and rolls down, getting faster and faster. This change in speed is called _____.

A. Stopping
B. Braking
C. Acceleration
D. Resting

4. If you walk 10 steps forward and then 10 steps backward to exactly where you started, what is your total displacement?

A. 20 steps
B. 10 steps
C. 0 steps
D. 5 steps

5. What two pieces of information do you need to know to find out an object's speed?

A. Weight and color
B. Distance and time
C. Height and width
D. Temperature and size

6. A honeybee flies 3 meters toward a flower. The measurement of '3 meters toward the flower' describes the bee's _____.

A. Force
B. Weight
C. Friction

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D. Displacement

7. When a school bus hits the brakes to stop at a red light, it is accelerating.

A. True
B. False

8. Which of these is the best example of an object at rest?

A. A soccer ball flying through the air
B. A book sitting on a sturdy shelf
C. A swinging pendulum on a clock
D. A revolving door spinning around

9. If a paper airplane flies at 2 meters per second toward the chalkboard, '2 meters per second' is its _____.

A. Time
B. Length
C. Speed
D. Mass

10. Distance and displacement are always exactly the same number.

A. True
B. False