Energy and Motion

Grade 4 Science Worksheet - Challenge Me

Name _____ Date _____

Read the investigation. Write the answer on the line.

READ THIS FIRST

A rolling ball test

Ana rolled a ball into a paper cup lying on its side. She rolled the ball slowly, then faster, then very fast, and measured how far the cup slid each time.

Slow roll: 10 cm
Fast roll: 35 cm
Very fast roll: 70 cm

1. What did the tester change to give the ball different amounts of energy of motion?

_____

2. Which gives the ball more energy of motion: the slow roll or the fast roll? Write the word.

_____

3. Which result shows the most energy of motion passed to the cup? Write the number.

_____

4. A faster ball hits the paper cup. Will the cup slide farther or not as far? Write farther or not as far.

_____

5. When the ball hits the cup, some of its energy of motion moves to the _____ . Write the word.

6. After the ball hits and stops, some of its energy turns into sound and heat. Did all of its energy go to the cup? Write yes or no.

_____

7. The faster an object moves, the _____ energy of motion it has. Write more or less.

8. The tester gives the ball even more speed than in the fastest trial. Will the result be more than 70 cm or less than 70 cm? Write more or less.

_____

Scan to get this marked free. No screen time for your child.
Print it · do it in pencil · scan it · PencilGo picks the next sheet.

Energy and Motion

Answer Key - Grade 4 Science Worksheet - Challenge Me

Read the investigation. Write the answer on the line.

READ THIS FIRST

A rolling ball test

Ana rolled a ball into a paper cup lying on its side. She rolled the ball slowly, then faster, then very fast, and measured how far the cup slid each time.

Slow roll: 10 cm
Fast roll: 35 cm
Very fast roll: 70 cm

1. What did the tester change to give the ball different amounts of energy of motion?

speed

2. Which gives the ball more energy of motion: the slow roll or the fast roll? Write the word.

fast

3. Which result shows the most energy of motion passed to the cup? Write the number.

70

4. A faster ball hits the paper cup. Will the cup slide farther or not as far? Write farther or not as far.

farther

5. When the ball hits the cup, some of its energy of motion moves to the **cup** . Write the word.

6. After the ball hits and stops, some of its energy turns into sound and heat. Did all of its energy go to the cup? Write yes or no.

no

7. The faster an object moves, the **more** energy of motion it has. Write more or less.

8. The tester gives the ball even more speed than in the fastest trial. Will the result be more than 70 cm or less than 70 cm? Write more or less.

more