# Energy and Motion

Grade 4 Science Worksheet - Challenge Me

Name _____ Date _____

Read the investigation. Write the answer on the line.

READ THIS FIRST

## A rubber band cart test

Zoe stretched a rubber band different amounts to launch a small cart into a wooden block. The more the band is stretched, the faster the cart leaves. She measured how far the block slid.

2 cm stretch: 30 cm
4 cm stretch: 85 cm
6 cm stretch: 150 cm

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

_____

2. Which gives the cart more energy of motion: the 2 cm stretch or the 4 cm stretch? Write the word.

_____

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

_____

4. A faster cart hits the wooden block. Will the block slide farther or not as far? Write farther or not as far.

_____

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

6. After the cart hits and stops, some of its energy turns into sound and heat. Did all of its energy go to the block? 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 cart even more speed than in the fastest trial. Will the result be more than 150 cm or less than 150 cm? Write more or less.

_____

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Answer Key - Grade 4 Science Worksheet - Challenge Me

Read the investigation. Write the answer on the line.

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**A rubber band cart test**

Zoe stretched a rubber band different amounts to launch a small cart into a wooden block. The more the band is stretched, the faster the cart leaves. She measured how far the block slid.

2 cm stretch: 30 cm
4 cm stretch: 85 cm
6 cm stretch: 150 cm

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

**stretch**

2. Which gives the cart more energy of motion: the 2 cm stretch or the 4 cm stretch? Write the word.

**4 cm**

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

**150**

4. A faster cart hits the wooden block. Will the block slide farther or not as far? Write farther or not as far.

**farther**

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

6. After the cart hits and stops, some of its energy turns into sound and heat. Did all of its energy go to the block? 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 cart even more speed than in the fastest trial. Will the result be more than 150 cm or less than 150 cm? Write more or less.

**more**