Energy and Motion

Grade 4 Science Worksheet - Building Confidence

Name _____ Date _____

Read the investigation. Write the answer on the line.

READ THIS FIRST

A marble and clay test

Kai dropped the same marble from three different heights onto flat, soft clay. The higher a marble starts, the faster it is going when it lands. He measured how wide a dent each drop made.

10 cm drop: 4 mm
30 cm drop: 7 mm
60 cm drop: 11 mm

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

_____

2. Which drop gave the marble the most energy of motion?

_____

3. Which drop gave the marble the least energy of motion?

_____

4. Which gives the marble more energy of motion: the 10 cm drop or the 30 cm drop? Write the word.

_____

5. A faster marble lands on the soft clay. Will the dent be wider or narrower? Write wider or narrower.

_____

6. When the marble hits the clay, some of its energy of motion moves to the _____ . Write the word.

7. Which result shows the most energy of motion passed to the clay? Write the number.

_____

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

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Answer Key - Grade 4 Science Worksheet - Building Confidence

Read the investigation. Write the answer on the line.

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10 cm drop: 4 mm
30 cm drop: 7 mm
60 cm drop: 11 mm

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

   drop height

2. Which drop gave the marble the most energy of motion?

   60 cm

3. Which drop gave the marble the least energy of motion?

   10 cm

4. Which gives the marble more energy of motion: the 10 cm drop or the 30 cm drop? Write the word.

   30 cm

5. A faster marble lands on the soft clay. Will the dent be wider or narrower? Write wider or narrower.

   wider

6. When the marble hits the clay, some of its energy of motion moves to the clay . Write the word.

7. Which result shows the most energy of motion passed to the clay? Write the number.

   11

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