

Paper Roller Coaster

Name: _____

Student worksheet

Date: _____

Directions: Use this worksheet to make drawings of your roller coaster design(s) and record your observations as you test it.

Word Bank (when appropriate, use these words in your short answers):

Conservation of energy

Friction

Potential energy

Energy

Kinetic energy

Thermal energy (heat)

1. Use this space to make a drawing of your group's roller coaster design. Include at least one loop or hill after the initial hill.

2. Build your roller coaster track as you designed it and test it. Try rolling the marble down it several times. It is OK if the marble does not make it all the way to the end yet.

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Name: _____

3. What happened when you tested your initial roller coaster? Did the marble make it all the way to the end? Did it get stuck or fall out? Write down your observations and explain why you think this happened. Use words from the word bank in your explanation.

4. Did your group make any changes to your roller coaster design as a result of your observations? If so, draw the new track design here.

5. What happened to the marble this time? Were your changes successful? Use words from the word bank in your explanation.