

Conservation of Energy Worksheet

Name _____

- 1) State the law of conservation of energy.

- 2) A 200-kg boulder is 1000-m above the ground.
 - a) What is its potential energy when it is 1000-m above the ground?

 - b) What is its kinetic energy when it is 1000-m above the ground?

 - c) The boulder begins to fall. What is its potential energy when it is 500-m above the ground? Where did the "lost" potential energy go?

 - d) What is the kinetic energy of the boulder when it has fallen 500-m?

 - e) What is the kinetic energy of the boulder just before it hits the ground?

- 3) A rollercoaster is designed as shown below. If the roller coaster starts at the top of the first hill from rest, describe what will happen to the rollercoaster. How could you fix this problem?

