

Name \_\_\_\_\_

## Springing into Action: Exploring Elastic Potential Energy

### Short Answer Key

1. Elastic potential energy is energy stored in objects when they are stretched, compressed, or deformed and can return to their original shape. An example is a stretched rubber band.
2. The amount of deformation in a spring is directly proportional to the stored elastic potential energy. The more an object is stretched or compressed, the greater the potential energy it stores.
3. Hooke's Law states that the force required to stretch or compress a spring is directly proportional to the amount of deformation. It is significant in understanding how springs store and release energy.
4. Two examples of everyday objects that rely on elastic potential energy are trampolines and bows.
5. Elastic potential energy and gravitational potential energy are similar in that they both involve storing energy. However, elastic potential energy is associated with deformation, while gravitational potential energy depends on an object's height above a reference point.

