Name _____ KE and PE Practice

Directions: Use your notes to answer the following questions:

Energy is the ability to do _____. When you are doing work you are actually transferring _____ from one object to another. The unit used for both work and energy is _____ (J).

Types of Energy:

Kinetic energy is the energy of _____. So… all moving objects have kinetic energy.

Kinetic energy (KE) can be calculated using the following formula:

The faster an object is moving, the _____ kinetic energy it has.

The greater the mass of an object, the _____ the kinetic energy.

Potential energy is the energy an object has due to its _____ or _____.

Potential energy is _____ energy that can be used later.

If you stretch a rubber band and hold it, the band will have _____ energy. When you release the rubber band, the energy is released, causing the rubber band to fly.

The potential energy becomes _____ energy.

Gravitational Potential Energy (GPE) is the energy of an object due to its _____.

It can be calculated using the formula:

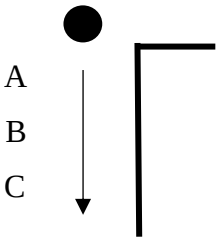
GPE = _____ x _____

Kinetic Energy Practice

1. What is the kinetic energy of a 4000 kg elephant running at 3 m/s?

2. What is the KE of a 5 kg soccer ball kicked with a velocity of 20 m/s?

3. A 5 kg rock is dropped from a 10 ft cliff.
   At which point (A,B,C) is the rock moving the fastest? _____
   Therefore, where will the rock have the greatest kinetic energy? _____

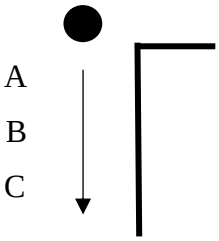


Potential Energy Practice

4. If you lift a 50 N watermelon to the top of a 2 m refrigerator, how much gravitational potential energy (GPE) do you give the watermelon?

5. If a 500 N man climbs to the top of a 5 m ladder, how much GPE does he have?

6. A 5 kg rock is dropped from a 10 ft cliff.
   At which point (A,B,C) will the rock have the greatest GPE? _____
   How can you tell? _____



Identify the following as either kinetic energy (KE) or potential energy (PE).

_____1. An airplane circling over the airport
_____2. A pile of coal that will be used for fuel
_____3. A flag blowing in the wind
_____4. A book on a shelf
_____5. An unlit firecracker
_____6. A hammer held above a nail
_____7. A new car battery
_____8. An ant crawling across a sandwich
_____9. Glucose stored in plants due to photosynthesis
_____10. A tennis racket poised to hit a ball
_____11. An eyelash fluttering
_____12. A ball rolling down the street
_____13. A cat stuck in a tree
_____14. A sleeping baby
_____15. A diver waiting on the high diving board
_____16. A diver in mid-air