

Law of Conservation of Energy

Total questions: 22

Worksheet time: 31mins

Name Class Date

1. Energy can be created.
 - a) True
 - b) False

2. Energy cannot be destroyed.
 - a) True
 - b) False

3. When something is dropped, what type of energy transfer takes place?
 - a) Kinetic -> Potential
 - b) Gravitational Potential -> Kinetic -> Sound
 - c) Electrical -> Chemical
 - d) Heat -> Nuclear

4. Imagine dropping a basketball. When would it have the most gravitational potential energy?
 - a) When it is closest to the ground
 - b) When it is at the highest point
 - c) When it is halfway down
 - d) It has the same amount of gravitational PE at all points

5. Food has _____ potential energy that our bodies transform into kinetic energy.
 - a) Elastic
 - b) Nuclear
 - c) Gravitational
 - d) Chemical

6. Energy is the ability _____.
 - a) to do work
 - b) to power things
 - c) to move objects
 - d) to turn on a light

7. According to the Law of Conservation of energy, the amount of energy before and after a reaction must be the same. Which statement below is true?
 - a) The total amount of energy is conserved
 - b) The total amount of energy is less after a reaction
 - c) The total amount of energy is more after a reaction

8. The Law of Conservation of Energy states:

- a) Energy can be created or destroyed but not transformed
- b) Energy cannot be created or destroyed, it can only be transformed
- c) Energy can't be created, destroyed or transformed

9. Potential or kinetic?

Stretched bow and arrow?

- a) kinetic
- b) potential

10. Potential or kinetic?

Running?

- a) potential
- b) kinetic

11. **What are the two factors influence kinetic energy?**

- a) mass and weight
- b) Speed and weight
- c) speed and mass
- d) particles and objects

12. Energy is the ability to do ____?

- a) to do work
- b) to move object
- c) to turn on a light
- d) to power things

13. The faster an object moves, the _____ kinetic energy it has.

- a) more
- b) less
- c) all of the above
- d) none of the above

14. _____ is stored energy

- a) Potential
- b) Kinetic
- c) none of the above
- d) all of the above

15. **Which type of energy is converted when fireworks release heat, light, and sound?**

- a) kinetic energy
- b) elastic potential energy
- c) chemical potential energy
- d) electromagnetic energy

16. As height increases, so does...

- a) Thermal energy
- b) Mechanical energy
- c) Kinetic energy
- d) Potential energy

17. Gravitational potential energy depends on...

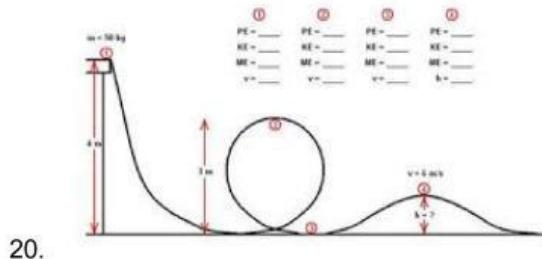
- a) Height
- b) Speed
- c) Light
- d) Time

18. An object that has kinetic energy must be...

- a) lifted above earth's surface.
- b) in motion
- c) at rest
- d) none of the above

19. This is the type of energy stored in a battery.

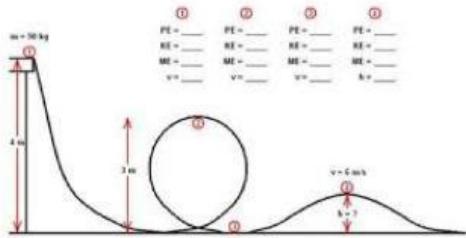
- a) Gravitational energy
- b) Elastic energy
- c) Nuclear energy
- d) Chemical energy



20.

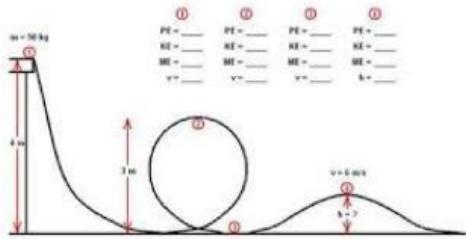
At which point would this roller coaster possess the greatest amount of potential energy?

- a) 1
- b) 2
- c) 3
- d) 4



21.

At which point would this roller coaster possess the most kinetic energy?



22.

At which point on this roller coaster would the amount of total energy equal the amount of potential energy?

- a) 1
- b) 2
- c) 3
- d) 4