

Guided Reading Chapter 7 Section 2

1. _____ is a quantity that is related to the ability of an object to change or cause changes.
2. Name four changes that can occur in response to a change in energy.
3. A *joule* is a unit of measurement of energy. What does this really mean?
4. The correct unit for a joule is
 - a) 1 kg-m/s
 - b) 1 kg-m²/s²
 - c) 1 g-cm/s
 - d) 1 kg-cm²/s²
5. Mechanical energy is the energy possessed by an object due to its _____ or _____.
6. The type of energy that comes from electric charge is called
 - a) chemical
 - b) electrical
 - c) mechanical
 - d) nuclear
7. The type of energy that is carried by electromagnetic waves is called
 - a) chemical
 - b) electrical
 - c) mechanical
 - d) radiant
8. Match the correct form of energy with its definition.

Pressure energy	energy stored in the nuclei of atoms
Chemical energy	a form of potential energy stored in molecules
Elastic energy	energy released when an object changes shape
Nuclear energy	a form of energy that is within gases and liquids
9. The flow of energy from the _____ supports all life on Earth.
10. What does “doing work” mean when it comes to physics?
11. Potential energy depends on _____.
 - a) height
 - b) mass
 - c) weight
 - d) none of these

12. Copy the equation for calculating potential energy. Don't forget labels!

13. _____ energy is energy of motion.

14. Kinetic energy depends on _____ and _____.

a) height, speed

b) mass, speed

c) height, mass

15. Copy the equation for calculating kinetic energy. Don't forget labels!

16. Follow the path of the transferred energy that flows through the system by completing the diagram.

Chemical energy → _____ → _____ → Electrical energy

17. Describe the transfer of energy that occurs when a ball is thrown up in the air and then caught when it comes down.

18. What is the "law of conservation of energy?"

19. Explain why a power plant doesn't make electricity.

20. Why is it incorrect to say "We ran out of gas," when referring to your cars energy source?