

Science Chapter 3 – Study Guide

1. As the **mass** of a moving object **increases**, the amount of **kinetic energy** it has:
 stays the same decreases increases
2. When an object is squeezed or stretched, the energy stored is called:
elastic potential energy
3. When can thermal energy be transferred?
...when the objects are at different temperatures
4. When the sound of a high pitched train whistle shatters glass, the energy is transferred from the whistle to the glass by:
sound waves
5. Burning coals convert chemical potential energy into:
thermal and light energy
6. Which type of energy transfer happens when the heat from a hot dish transfers to a person's hands?
conduction
7. When heat energy moves through gas or liquid, it is called:
convection
8. During radiation, energy is transferred by:
electromagnetic waves
9. The amount of kinetic energy a moving object has depends on the object's
mass and speed.
10. Before fuel is burned, energy is stored in the:
chemical bonds of the material
11. Water, sound, and electromagnetic waves can transfer energy.

12. When coal burns, most of the chemical energy changes form and only a small part of the coal's original chemical potential energy remains in the ashes.
13. When a driver of a car steps on the brakes, it causes friction. Its kinetic energy is then transformed into:
heat energy
14. The sun's heat and light give off:
radiation
15. When thermal energy is transferred through matter or space through electromagnetic waves, it is called radiation.
16. The object's mass and its height above the ground are two characteristics that impact the gravitational potential energy of an object.
17. All forms of energy: (choose the best answer)
- a. Spread out from their source in all directions
 - b. Move from one place to another due to differences in temperature
 - ☒ c. Can cause something to change
 - d. Move from one place to another due to differences in temperature
18. When thermal energy is transferred between particles in matter, it is called:
conduction
19. Thermal energy is best conducted through: (choose the best answer)
- ☒ a. copper
 - b. air
 - c. plastic
 - d. wood
20. When heating a pot of water on the stove:
The water temperature at the bottom of the pot is hottest
21. When fuel is consumed, most of the energy becomes:
heat energy
22. Energy can be carried from one place to another by heat flow or by waves (including water, light and sound waves), or by moving objects.