

## Science 7 Unit C

1. Energy that a particle possesses by being in motion is called

- a) Movement Energy
- b) Particle Energy
- c) Kinetic Energy
- d) Nuclear Energy

2. Which fact is **NOT** true about solids

- a) Particles are attached to each other in all directions
- b) Solids have a defined shape and volume
- c) Solid state particles do not move at all
- d) Solids are more dense than matter in a gas state

3. Particles in this state are only loosely attached to each other

- a) Gas
- b) Liquid
- c) Solid
- d) Plasma

4. Matter in this state takes the shape of its container

- a) Gas
- b) Solid
- c) Liquid
- d) Plasma

5. Particles in this state have the lowest freedom of movement & low levels of kinetic energy

- a) Solid
- b) Gas
- c) Liquid
- d) Plasma

6. Which has the highest density?

- a) Tinfoil
- b) Paper

- c) Feathers
- d) Glass

7. A furnace is an example of what type of heating technology?

- a) Thermostat
- b) Central
- c) Local
- d) Combustion

8. Which of the following energy transfers is correct?

- a) Thermal energy in a hot drink is transferred to cold hands
- b) Thermal energy is transferred from a room to a heater
- c) An ice cube loses thermal energy when it melts in hot lemonade
- d) Thermal energy is gained by hot lemonade when mixed with an ice cube

9. When air is heated inside a balloon, the air makes the balloon rise. This happens because compared to the air outside the balloon, the air inside the balloon is

- a) Less dense
- b) More Dense
- c) Warmer
- d) Cooler

10. As more heat is transferred to a solid, the particles vibrate and some of the particles in the solid break loose. The solid begins to change state to

- a) Gas
- b) Liquid
- c) Solid
- d) Plasma

11. Solar energy is an excellent source of thermal energy. This type of energy is produced inside the Sun by

- a) Biological processes
- b) Nuclear Reactions
- c) Magnetic Waves
- d) Electric Stroms

12. Transfer of heat energy between substances that are in contact with each other is defined as \_\_\_\_\_

- a) Convection
- b) Contradiction
- c) Radiation
- d) Conduction

13. The emission of energy as electromagnetic waves is called \_\_\_\_\_

- a) Light
- b) Convection
- c) Radiation
- d) Conduction

14. Which of the following is made of a material considered to be a good insulator?

- a) Tinfoil
- b) Plastic fork
- c) Water
- d) Copper wire

15. In an average house heat is lost in four major places. The **least** amount of heat is lost through the

- a) Walls
- b) Windows
- c) Through the roof
- d) Gaps and poorly sealed areas

16. Particles in a solid state do not move, rotate, or vibrate (True or False)

17. -40 degrees Celsius is colder than -35 degrees Celsius (True) or (False)

18. Heat is also considered to be infrared radiation (True) or (False)

19. Conductors are known to be too low in density (True) or (False)

20. The world will never run out of renewable energy (True) or (False)

21. Buildings heated by the sun's rays that need the aid of some mechanical device to help transfer the energy produced is called \_\_\_\_\_ heating?

22. The **total** kinetic energy of all particles a substance contain is defined as \_\_\_\_\_

23. The average kinetic energy of particles in a substance is defined as \_\_\_\_\_

24. Warmer particles transfer their energy to the cool particles as they move in a **circular pattern** is defined as \_\_\_\_\_

25. As you heat matter its density tends to \_\_\_\_\_

26. What are the economic and environmental **disadvantages** of nuclear power plants? ( 2 marks)

Environmental:

Economical:

27. For each of the following energy resources explain if it is a renewable or non-renewable resource. (4 marks)

a) Wind energy

b) Coal

c) Nuclear power

d) Hydro-electric