

Name: \_\_\_\_\_

Date: \_\_\_\_\_

- 1 Which is an example of an object that might exist in the plasma state of matter?
  - A air
  - B steel
  - C stars
  - D water
  
- 2 Which describes the motion of particles in matter?
  - A slow
  - B random
  - C upwards
  - D back and forth
  
- 3 What type of energy do particles of matter have due to their motion?
  - A kinetic
  - B thermal
  - C potential
  - D electromagnetic
  
- 4 What is the source of potential energy in particles?
  - A the motion of particles
  - B the collision of particles
  - C the pull particles exert on each other
  - D the transfer of energy between particles
  
- 5 What is an example of deposition?
  - A fog
  - B dew
  - C rain
  - D frost
  
- 6 Which process is the opposite of deposition?
  - A boiling
  - B evaporation
  - C sublimation
  - D condensation
  
- 7 change of state from a gas to a liquid
  - A boiling
  - B evaporation
  - C condensation

- 8 vaporization throughout a liquid
- A boiling
  - B evaporation
  - C condensation
- 9 vaporization at the surface of a liquid
- A boiling
  - B evaporation
  - C condensation
- 10 matter with a fixed volume, but not a fixed shape
- A solid
  - B liquid
  - C boiling point
- 11 matter with a fixed shape and volume
- A solid
  - B liquid
  - C boiling point
- 12 Use the following words to complete the table: weak, moderate, strong.

	Solid	Liquid	Gas
Shape	fixed	not fixed	not fixed
Volume	fixed	fixed	not fixed
Attraction between particles	1.	2.	3.

- A 1: strong. 2: weak. 3: moderate
  - B 1: strong. 2: moderate. 3: weak
  - C 1: weak. 2: moderate. 3: weak
- 13 Describe what happens to the temperature of water as it heats. Describe what happens to the temperature of water as it is boiling.
- A As the water heats, its temperature increases. Once the temperature reaches the boiling point, it decreases.
  - B As the water heats, its temperature increases. Once the temperature reaches the boiling point, it stays the same.

- 14 Renoldo leaves an iced drink outside on a hot day. He notices drops of water on the outside of the cup. Summarize what happened to make the drops form.
- A These drops of water come from the air surrounding the glass. The air contains water vapor. The cold glass cools the air next to it. When the water vapor becomes cool enough, it changes from a gas to a liquid.
  - B These drops of water come from the water in the glass. The water at the surface condenses and these droplets fall onto the outside of the glass. Eventually, all the water in the glass will sublime.
- 15 Kathy fills her thermos to the brim with water, seals it, and puts it in the freezer so it will cool quickly. She forgets about the thermos until the following day. When she opens the freezer, she finds that her thermos has cracked. Explain what happened.
- A When the water in Kathy' s thermos froze, it expanded. This cracked the thermos because it was filled to the brim.
  - B The solid particles in the thermos material became more tightly packed as the temperature in the freezer decreased. This shrinking caused the thermos to crack.
- 16 Adita measures the temperature of boiling water. She plans to measure the temperature of the boiling water again in five minutes. Predict what will happen to the temperature when Adita measures it a second time.
- A It will have increased.
  - B It will be the same.
  - C It will have decreased.