

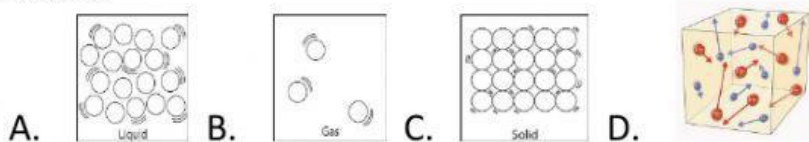
Chapter 2 Test

1. Check the statements below that are true about matter.

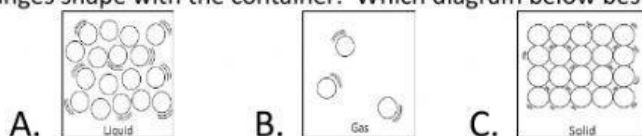
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|--|--|
| ☐ All matter is made of cells | ☐ All matter is made of atoms. |
| ☐ Particles in matter move faster when they are heated. | ☐ The particles in matter are in constant motion. |
| ☐ Particles in matter move faster when they are cooled. | ☐ Particles in matter move slower when they are cooled. |

Multiple Choice

_____ 2. A substance is discovered that **does not change** shape when moved from one container to another and **does not change** the amount of space it takes up. Which diagram below best fits this state of matter?



_____ 3. A substance is discovered that when poured into another container **fills** the container and changes shape with the container. Which diagram below best fits this state of matter?



_____ 4. Malik found a substance he believes is a liquid. What characteristics should the substance possess if it is a liquid?

- a. Definite shape, definite volume
- b. No definite shape and no definite volume
- c. No definite shape, definite volume
- d. Definite shape, no definite volume

_____ 5. In which state of matter do the particles have the most kinetic energy?

- a. Solid
- b. Liquid
- c. Gas

_____ 6. What type of matter makes up the sun?

- A. Solid
- B. Liquid
- C. Gas
- D. Plasma

_____ 7. When a substance is heated what happens to its volume?

- A. Decreases
- B. Does not change
- C. Increases
- D. Stabilizes

_____ 8. Which of these best describes the particle motion taking place as a sample of oxygen gas is exposed to freezing temperatures?

- A. The motion of the particles becomes random.
- B. The particles decrease in speed.
- C. The particles move with more force.
- D. The motion of the particles is unchanged.

_____ 9. _____ is when as *the temperature of a substance increases*, its *volume usually increases*.

- A. Temperature
- B. Thermal energy
- C. Thermal expansion
- D. Expansion joints

_____ 10. As you press downward on a bicycle tire pump, the volume of gas decreases, what happens to the pressure of the gas?

- A. It increases.
- B. It decreases.
- C. It stays the same.
- D. It fluctuates.

_____ 11. As the air over the tropical (warm) oceans is heated its volume _____.

- A. increases
- B. decreases
- C. stays the same
- D. fluctuates

_____ 12. The temperature at which bubbles of vapor are formed within the liquid as it changes to a gas is the _____.

- A. Melting point
- B. Boiling point
- C. Sublimation point
- D. Dew point

Matching Use the pencil to join the matching answers

- | | |
|------------------------|--|
| _____ 13. Evaporation | A. As heat is added, a liquid turns into a gas |
| _____ 14. Freezing | B. As heat is added, a solid turns into a liquid |
| _____ 15. Melting | C. As heat is added, a solid turns into a gas. |
| _____ 16. Condensation | D. As heat is released, a gas turns to a solid. |
| _____ 17. Sublimation | E. As heat is released, a gas turns into a liquid. |
| _____ 18. Deposition | F. As heat is released, a liquid turns into a solid. |

True or False: If the sentence is true put a "T ". If the answer is false, change the sentence to make it true.

19. As a substance loses thermal energy, its temperature may decrease OR it may change state of matter, it cannot do both.

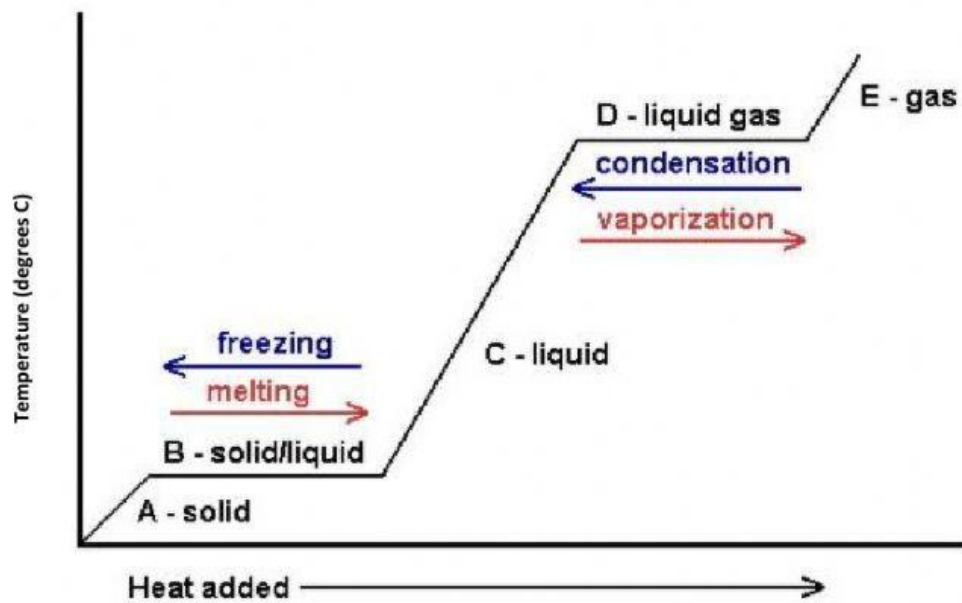
20. Fluids diffuse from an area of low concentration to an area of high concentration.

21. Heat changes the temperature of a substance **when it is melting**.

Short Answer

22. A truck driver checks the air pressure in a truck's tires before a long trip and finds the pressure is correct. After six hours of driving on a **hot** day, the driver finds that the tire **pressure has increased** so much that air must be let out. Explain why the change in pressure occurred and why the driver let out some air.

23. Explain how thermal expansion is used in a thermometer.



24. What is the dependent variable in this graph?
25. Along line A, the substance is below its freezing point and its state of matter is a _____.
26. What is happening to the temperature of the substance as it is melting?
27. Along line C, the substance is below its boiling point and its state of matter is a _____.
28. What is happening to the temperature of the substance as the liquid is being heated?
29. What is happening to the temperature of the substance as it is evaporating?
30. What is the state of matter of the substance along line E?