

Skills Worksheet

Directed Reading A

(use with pp. 40 – 45)

Section: Changes of State

ENERGY AND CHANGES OF STATE

- _____ 1. Which has the most energy?
- a. particles in steam
 - b. particles in liquid water
 - c. particles in ice
 - d. particles in freezing water
2. When a substance changes from one physical form to another, we say the substance has had a(n) _____
3. List the five changes of state. _____
- _____

MELTING: SOLID TO LIQUID

4. Could you use gallium to make jewelry? Why or why not?
- _____
- _____
5. The temperature at which a substance changes from solid to liquid is the _____ of the substance.
6. Melting is considered a(n) _____ change because energy is gained by the substance as it changes state.

FREEZING: LIQUID TO SOLID

7. A substance's _____ is the temperature at which it changes from a liquid to a solid.
8. What happens if energy is added or removed from a glass of ice water?
- _____
- _____
9. Freezing is considered a(n) _____ change because energy is removed from the substance.

Evaporation: Liquid to Gas

Match the correct definition with the correct term. Write the letter in the space provided.

- | | |
|--|-------------------|
| _____ 10. the change of a substance from a liquid to a gas | a. boiling point |
| _____ 11. the change of state from a liquid to a gas when the vapor pressure equals the atmospheric pressure | b. vapor pressure |
| _____ 12. the pressure inside the bubbles of a boiling liquid | c. evaporation |
| _____ 13. the temperature at which a liquid boils | d. boiling |

CONDENSATION: GAS TO LIQUID

- 14. The change of state from a gas to a liquid is _____.
- 15. At a given pressure, the condensation point for a substance is the same as its _____.
- 16. For a substance to change from a gas to a liquid, particles must _____.

SUBLIMATION: SOLID TO GAS

- 17. Solid carbon dioxide isn't ice. So why is it called "dry ice"?

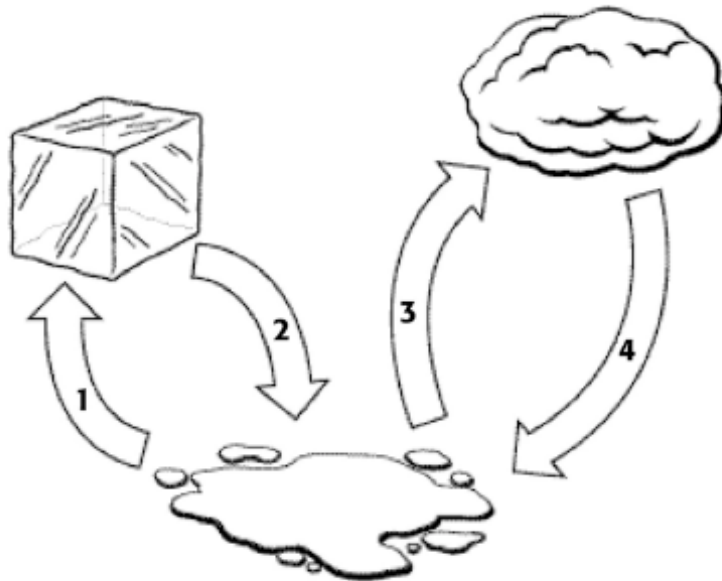
- 18. The change of state from a solid to a gas is called _____

CHANGE OF TEMPERATURE VS. CHANGE OF STATE

- 19. The speed of the particles in a substance changes when the _____ changes.
- 20. The temperature of a substance does not change before the _____ is complete.

- 21. Identify each change of state from the word bank on the diagram below.

Freezing Melting Vaporization Condensation Sublimation



- 1. _____
- 2. _____
- 3. _____
- 4. _____