Quiz: The Role of Energy in States of Matter

Multiple Choice Questions

1. What determines whether a substance is a solid, liquid, or gas?
   A. Size of particles
   B. Type of substance
   C. Amount of kinetic energy
   D. Volume of the substance

2. What happens to particle movement as energy increases?
   A. Movement stops
   B. Movement slows down
   C. Movement speeds up
   D. Particles become larger

3. Which state change requires the **absorption** of heat energy?
   A. Gas → Liquid
   B. Liquid → Solid
   C. Gas → Solid
   D. Solid → Liquid

4. During which process is heat **released**?
   A. Melting
   B. Boiling
   C. Condensation
   D. Sublimation

True or False

5. All matter is made up of constantly moving particles.
6. Stronger forces between particles are found in gases.
7. Heat energy is absorbed when a substance goes from a gas to a solid.
8. Sublimation is the process where a gas changes directly into a solid.

Fill in the blanks with the correct **key terminology** related to energy and states of matter.

1. The amount of movement in particles is determined by their _____ **energy**.
2. A _____ has particles that are closely packed together and vibrate in place.
3. When a liquid turns into a gas, the process is called _____.
4. The process of a gas turning into a liquid is known as _____.
5. A _____ **point** is the temperature at which a solid becomes a liquid.
6. _____ **energy** is required for a substance to change from a solid to a gas.
7. In a _____, particles move freely and are far apart from each other.
8. When a gas changes directly into a solid, it's called _____.
9. _____ is when a solid changes straight into a gas, like dry ice.

10. The temperature at which a liquid becomes a gas is its _____ **point**.

Explain how sweating helps cool the body down using the concept of energy.

Describe what happens to the particles of water when it boils.