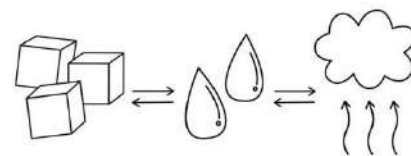


Name _____ Date _____



KINETIC THEORY OF MATTER QUIZ

1. What is the kinetic theory of matter?

2. What does kinetic theory state about matter?

3. Using kinetic theory, explain the main physical differences between solids, liquids, and gases.

4. How does increasing and decreasing temperature affect the kinetic energy of particles in the three states of matter (solids, liquids, and gases)?

5. State whether energy needs to be added or removed for each of the following transitions of state to occur.

- a. Condensation _____
- b. Melting _____
- c. Vaporization _____
- d. Deposition _____
- e. Freezing _____

6. Explain the following changes of state based on kinetic theory:

- a. Melting

b. Boiling

c. Condensation

d. Freezing

7. Kinetic theory can be used to explain the physical properties of matter. Use the theory to explain the following:

a. solids expand upon heating

b. Liquids flow but solids do not

c. Gases can be compressed easily

d. Liquids don't have definite shapes but have definite volumes

8. Based on kinetic theory, explain why iodine sublimates and goes from the solid state directly into the gaseous state without passing through the liquid state.

9. The temperature at which condensation occurs is usually the boiling point of the substance. Explain.

10. Consider evaporation and boiling.

a. How are they similar?

b. What are the two main differences between them?
