

Name _____

Matter Matters: Exploring Solids, Liquids, and Gases

Short Answer Key

1. An example of a solid is a wooden desk. Solids have a definite shape and volume, and their particles are closely packed together, vibrating in place.
2. Liquids, like water, have a definite volume but take the shape of their container. They flow and can be poured, and their particles are less tightly packed than in solids. An example of a liquid is water in a glass.
3. Gases have particles that move freely in all directions. They take the shape and fill the entire space of their container. Unlike solids and liquids, gases have widely spaced particles and no definite shape or volume.
4. During a phase change, matter transforms from one state to another due to changes in temperature and/or pressure. For example, when you heat ice, it undergoes a phase change from a solid to a liquid (melting). Similarly, when you cool water vapor in the air, it undergoes a phase change from a gas to a liquid (condensation).
5. Density is a measure of how much mass is packed into a given volume. Solids are generally denser than liquids, and liquids are denser than gases. The density of a substance depends on the arrangement of its particles.

