

**Chapter
Outline****States of Matter****CHAPTER 6****Lesson 1: Solids, Liquids, and Gases****A. What are states of matter?**

1. The three states of matter commonly found on Earth are _____, _____, and _____.
2. Stars and lightning are examples of _____ (hint: a fourth state of matter), which exists as a _____ (hint: a state of matter) that has an electrical charge.
3. The motion of particles is called _____ **motion**, because particles move in any direction and can have different speeds. Colliding particles can change _____ and direction.
4. Moving particles are attracted to each other due to their _____ force.
5. As particles move closer to each other, their attractive force _____; as particles move farther apart, their attractive force _____.

B. Solids

1. A _____ is matter that has a fixed shape and a fixed volume.
2. Strong attractive forces in a solid keep _____ close together.
3. Because each particle moves only a short distance back and forth between neighboring particles, the shape and _____ of the solid remain fixed.

C. Liquids

1. Liquid is matter with a fixed volume but not a fixed _____.
2. The particles in a liquid are farther apart, and their attractive _____ is less than in a solid.
3. Particles in a liquid move _____ freely than particles in a solid.

D. Gases

1. A _____ is matter with no fixed volume and no fixed shape.
2. The particles in a gas are far apart and have little _____ force.
3. Particles in a gas move freely to fill whatever _____ they are in.