

Chapter 6 Lesson 1 Notes

What are states of matter?

- The state of matter depends on the motion of its particles.
- States of matter are solids, liquids, gases, and plasma.



[States of Matter](#)

Click here to learn more!



Resources

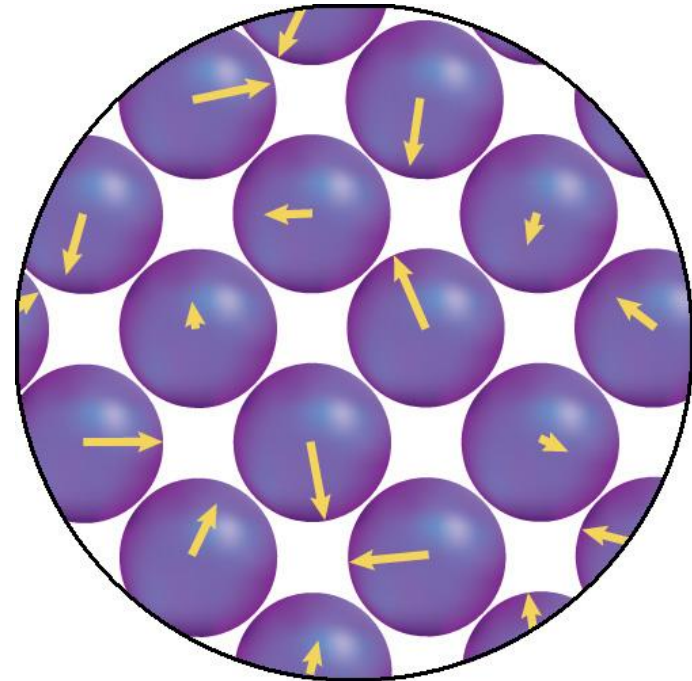


Particles in Matter

- All objects are made of particles.
- Even though the objects are not moving, their particles are.



- Particles move in **random motion**, or in any direction at any speed.



Particles in Matter (cont.)

- In any object, the number of particles moving in one direction is equal to the number of particles moving in the opposite direction.
- Particles collide and change speed and direction.



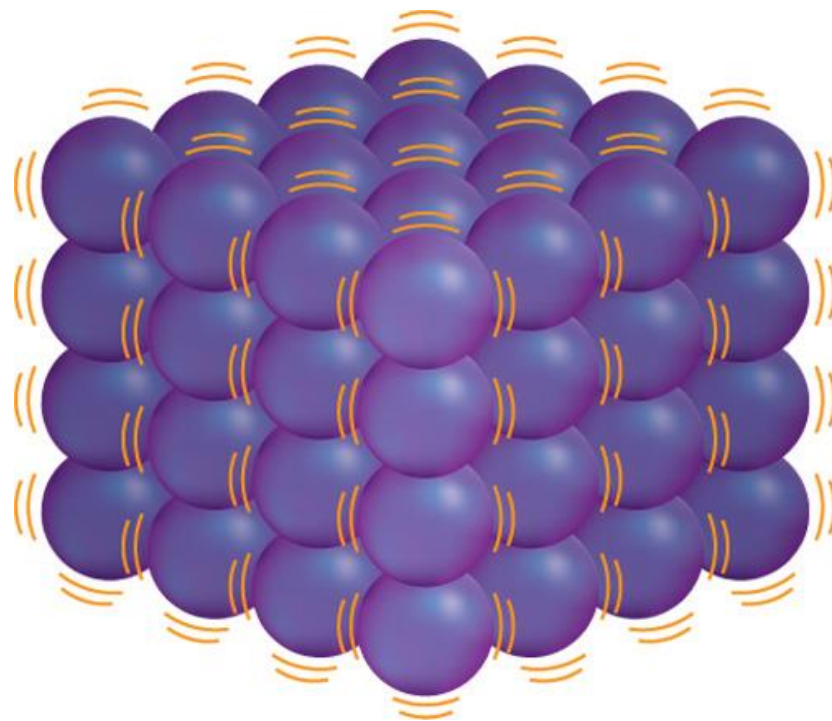
Particles Attract

- Particles are attracted to each other.
- The attraction grows stronger as particles move closer together and weaker as they move apart.



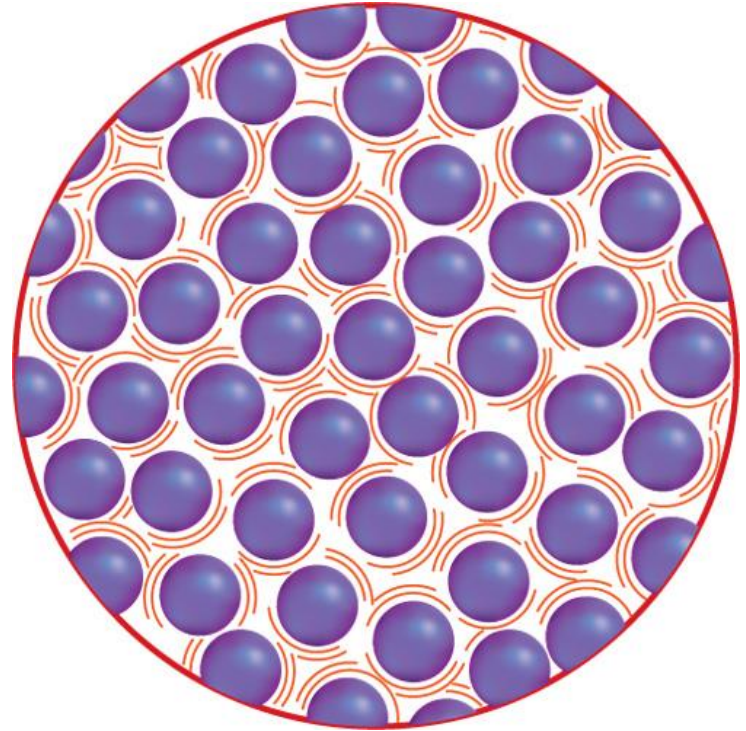
Solids

- A **solid** is matter with a fixed shape and fixed volume.
- Particles stay in the same place and vibrate back and forth in all directions.



Liquids

- A **liquid** is matter with a fixed volume but not a fixed shape.
- The particles are farther apart and not as strongly attracted so they move more freely than in a solid.



Gases

- ◀ A **gas** is matter that has no fixed shape or fixed volume.
- Shape and volume of a gas depends on the container.
- Gas particles move in random motion inside a container.

