

The Behavior of Gases

(Chapter 8, section 3)

Name _____

Period _____

1. What three measurements are helpful to know when working with a gas?
2. Describe the four basic ideas of the kinetic molecular theory.
3. _____ is the amount of force applied per unit of area.
4. _____ states that pressure of a gas increases if the volume decreases, and that pressure of a gas decreases if the volume increases, when temperature is constant.
 - a. Explain why this happens (look in the previous paragraph).
5. Diagram a simple **graph** showing the relationship between pressure and volume.
6. Complete the following:

If pressure increases, volume _____

If pressure decreases, volume _____

If volume increases, pressure _____

If volume decreases, pressure _____
7. _____ states that the volume of a gas increases with increasing temperature, if the pressure is constant.
 - a. Explain why this happens (look at the previous paragraph).
8. Diagram a simple **graph** showing the relationship between temperature and volume.

9. Complete the following:

If temperature increases, volume _____

If temperature decreases, volume _____

Use the background information in the **It's a Gas lab** to answer the following:

10. _____ states that the pressure of a gas increases with increasing temperature, if the volume is constant.

a. Explain why this happens.

11. Diagram a simple **graph** showing the relationship between temperature and pressure.

12. Complete the following:

If temperature increases, pressure _____

If temperature decreases, pressure _____