

Gases and Vapor

1. “**STP**” means “**S**tandard **T**emperature and **P**ressure.” (273 Kelvin & 1 atm)
2. **Gases** have widely-spaced particles that are in random motion.
3. **Gases** are easily compressed and have no definite shape or volume.
4. As the **pressure** on a gas increases, the **volume** decreases proportionally.
5. As the **pressure** on a gas increases, **temperature** increases.
6. As the **temperature** of a gas increases, **volume** increases.
7. *Always use Kelvins* for temperature when using the **combined gas law**.

$$\frac{P_1 V_1}{T_1} = \frac{P_2 V_2}{T_2}$$

8. **Real gas** particles have volume and are attracted to one another, and thus do not always behave like **ideal gases**.
9. Real gases behave more like ideal gases at *low pressures and high temperatures*.

USE THE REFERENCE TABLES!!!