**Unit 8 Gases Study Guide**

**Test Thursday April 27th, 2017**

**What is absolute zero?**

* Understand that all movement of particles inside of a substance stopped when absolute zero is reached.

**How does kinetic molecular theory explain the behavior of gases?**

* Have small particles with large, empty spaces between them.
* Gas particles are in constant, random motion.
* Gas particles have elastic collisions.
* Temperature is a measure of the average kinetic energy of the gas particles.

**How are temperature, pressure, and volume of a gas related?**

* Predict how gas behavior and pressure will change using the gas laws, including:
  + pressure
  + volume
  + temperature (including at absolute zero)
  + number of particles
* Solve Combined Gas Law problems.

**How does Avogadro’s Law demonstrate the relationship between mole ratios and gas volumes in a balanced chemical equation?**

* Relate molar volume to stoichiometric relationships.
* Solve Ideal Gas Law problems.

**Why are the Ideal Gas Laws “laws?”**

* Explain that laws describe specific relationships under given conditions, but do not offer explanations.