**Physical Science Study Guide**

**Chapter 2 – Matter**

* **Objectives**
  + Explain the relationship between matter, atoms, and elements.
  + Distinguish between elements and compounds.
  + Interpret and write some common chemical formulas.
  + Categorize materials as pure substances or mixtures.
  + Use the kinetic theory to describe the properties and structures of the different states of matter.
  + Describe the energy transfers involved in changes of state.
  + Describe the laws of conservation of mass and conservation of energy, and explain how they apply to changes of state.
  + Distinguish between chemical and physical properties of matter.
  + Perform calculations involving density.
  + Distinguish between chemical and physical changes in matter.
  + Apply the laws of conservation of mass and conservation of energy to chemical and physical changes.
  + Evaluate materials and their properties for different uses.
* **Vocabulary**
  + Chemistry
  + Matter
  + Element
  + Atom
  + Compound
  + Molecule
  + Chemical formula
  + Pure substance
  + Mixture
  + Miscible
  + Immiscible
  + Pressure
  + Viscosity
  + Energy
  + Evaporation
  + Condensation
  + Sublimation
  + Chemical property
  + Reactivity
  + Physical property
  + Melting point
  + Boiling point
  + Density
  + Buoyancy
  + Chemical change
  + Physical change
* **Formulas (Provided on test)**
  + d=m/v