## CHE 101 Chapter 1 - Study Guide

**Terms:** Chemistry, Hypothesis, Theory, Scientific Law, Scientific Method, Matter, Solid, Liquid, Gas, Phase, Amorphous, Homogeneous, Heterogeneous, Pure Substance, and Mixtures

- 1. General understanding of the scientific method
  - a. Quantitative Measurements (Ch 2)
  - b. Qualitative Observations Categorizing
- 2. Define, Compare, Contrast and Differentiate between:
  - a. Solids, liquids, and gases based on shape, volume, particle interactions, and compressibility. (Table 1.1 and Fig. 1.5)
  - b. Pure substances (Elements and Compounds) and Mixtures
    - 1. Physical vs. Chemical Separation
    - 2. Fixed vs. Variable Composition
    - 3. Figure 1.7
  - c. Homogeneous and Heterogeneous
    - 1. One phase vs. two phases
    - 2. Same properties (chemical and physical) throughout vs. different properties in different parts.
- 3. The review from the book is very nice also.