This exam will cover the following information and you will need to be able to understand all of the proper terms and vocabulary that will accompany it. Everything since the beginning of the year is fair game to be on the exam so you need to be ready for it.

1. Density:
   1. Finding the volume and mass of an irregular solid
      1. Equipment needed: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
      2. Method of volume on irregular solid: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
      3. Unit for mass:\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Volume: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
      4. Unit for density \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
      5. Formula for density: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Parts of the atom:
   1. Three types of sub atomic particles:
      1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
         1. charge:\_\_\_\_\_\_\_\_\_\_\_\_\_ location: \_\_\_\_\_\_\_\_\_\_\_
      2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
         1. charge: \_\_\_\_\_\_\_\_\_\_\_\_ location: \_\_\_\_\_\_\_\_\_\_\_\_

Name\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Parent Signature:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* + 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
       1. charge: \_\_\_\_\_\_\_\_\_\_\_\_ location: \_\_\_\_\_\_\_\_\_\_\_\_\_
  1. Net charge of the nucleus means you look at what?
     1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  2. Net charge of an atom means you look at what?
     1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  3. APE MAN
     1. A= \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
     2. P=\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
     3. E= \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
     4. M= \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
     5. A= \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
     6. N= \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  4. What is the most important part of the atom to look at when determining identity?
     1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  5. What is the most important part of the atom to look at when determining chemical properties?
     1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
     2. How do you find this number? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  6. Columns are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and have \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
  7. Rows are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and have \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

1. Who came up with the different models of the atom and what did their research tell us? Examples: Rutherford, Democritus and others.

1. Properties of metals, nonmetals, metalloids:
   1. Metals are typically:
   2. Nonmetals are typically:
   3. Metalloids typically have:
2. Chemical formulas and equations:
   1. Letters tell us what?
   2. Subscripts tell us what?
   3. Coefficients tell us what?
   4. Draw and label an example of a chemical equation (remember they have 3 parts!!!):
3. What does the law of conservation of mass state:
4. Writing chemical equations from words when using words such as products are, and reacts with.
5. Eight signs of chemical change:
   1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   7. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   8. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. Using models for their intended purpose and be able to identify their limitations. Things such as Lewis dot structures, ball and stick models, models showing covalent bonded compounds. Bohrs models.