Chemistry 101
Unit 4 – Outcomes

The student will be able to:

1) Identify the features of Dalton's Atomic Theory; state whether each feature is still considered to be valid.

2) Identify the 3 basic subatomic particles by charge & approximate atomic mass.

3) Describe the nuclear model of the atom.

4) Identify that like charges repel & unlike charges attract.

5) Identity that identity of an element is determined by # of protons in the nucleus.

6) Define isotopes of an element and how they differ from each other.

7) For an isotope of any element, given one of the following, state the other two:
nuclear symbol
number of protons and neutrons in the nucleus
atomic number and mass number

8) Given a nuclide symbol, determine the number of protons, neutrons and electrons.

9) Write symbols for isotopes given the mass number.

10) Define Atomic Mass of an element.

11) Define the atomic mass unit (amu).

12) Given Z, Name the atom.

13) Given isotope name, identify number of protons, neutrons, and electrons.

14) Given name or symbol of the common elements, give the other.

15) Using Periodic Table, identify the Symbol, Z, & A of the common elements.

16) Define "periodic" as used in the periodic table.

17) Identify the horizontal rows on the Periodic Table as periods.

18) Identify the vertical columns of the Periodic Table as Groups or families.

19) Recognize that elements in the same group have similar chemical properties

20) Use the Periodic Table to classify an element as:
Representative Element
Transition Element
Lanthanide Element
Actinide Element

21) Using Periodic Table, classify an element as a metal, nonmetal, or metalloid.