

Periodic Table Notes

General Information:

1. Elements are arranged in order by the number of protons.
2. Elements cannot be broken down into something smaller, but they can be combined to form new substances.
3. Rows are called periods.
4. Columns are called families (or groups).

Element Symbols:

1. Abbreviations of the element name or the Latin name
2. Can be 1, 2, or 3 letters with the first always capitalized and the second always lowercase
3. Element symbols with 3 letters are unconfirmed. They are given a temporary name and symbol until they are confirmed. The symbols start with Uu and the names begin with Unun.
4. Since symbols do not ever have two capital letters so when you look at a chemical formula, you can always differentiate between the elements. If there are two capital letters side by side, you know it is two separate elements. The numbers next to the element symbols represents how many atoms of that element.
 - a. Example: H_2O → H represents hydrogen and there are 2 atoms; O represents oxygen and there is 1 atom.
 - b. Example: MgSO_4 → Mg represents magnesium and there is 1 atom; since there is not an element SO, you know that S is one element and O is a separate element. S represents sulfur and there is 1 atom; O represents oxygen and there are 4 atoms.
 - c. Example: K_3PO_4 → K represents potassium and there are 3 atoms; P represents phosphorus and there is 1 atom; O represents oxygen and there are 4 atoms.

Formulas to Remember:

1. Number of protons is the same as the atomic number.
2. Number of electrons is the same as the number of protons.
3. Number of neutrons = atomic mass – number of protons
4. Atomic mass = number of protons + number of neutrons

Model of an Atom

