**Constructing Word Equations and unbalanced Chemical Equations**

Use the following steps to write unbalanced chemical equations:

* Write the word equation
* Directly underneath the word equation, write the unbalanced formula equation
* Add subscripts – (s), (l), (g) or (aq) where (s) solid or precipitate, (l) liquid (only water), (g) gas and (aq) aqueous which means it is a powder mixed with water
* Extension: Balance the equation as shown in class. Remember to start with the metals, then non-metals, then oxygen and finally hydrogen.

Remember:

Non-metal gases are usually diatomic

1. If sulfuric acid is poured onto solid sodium carbonate, bubbles of carbon dioxide are produced as well as water and the soluble salt sodium sulfate.
2. Magnesium burns easily in oxygen, producing solid magnesium oxide
3. Iron (II) metal reacts with chlorine gas to produce solid iron chloride
4. When solutions of lead nitrate and sodium iodide are mixed, a precipitate of yellow lead iodide is formed as well as sodium nitrate in solution.
5. When dilute sodium sulfate solution is added to dilute barium nitrate solution, a precipitate of barium sulfate is formed as well as sodium nitrate solution
6. Dilute hydrochloric acid is added to solid magnesium hydroxide, producing water and the soluble salt magnesium chloride.
7. When methane (CH4) is burned in air, carbon dioxide and water are formed
8. Dilute sodium hydroxide is added to dilute sulphuric acid, producing water and the soluble salt sodium sulfate
9. When aluminium reacts with chlorine gas, solid aluminium chloride is produced
10. During photosynthesis, the Sun’s energy, carbon dioxide and water are used by green plants to produce glucose and oxygen.
11. When copper is added to nitric acid, copper nitrate, gaseous nitrogen dioxide and water is formed.