**2.3 The Periodic Table**

**Section Summary**

**Periods:** horizontal rows (numbered 1-7)

Most reactive metals start on the left. As you move right, they become less reactive.

**Groups or Family:** vertical column (numbered 1-18)

**Atomic Number:** number above the elements symbol on the left.

= number of protons in the nucleus.

= number of electrons

**Atomic Mass:** number below the name.

The total mass of all the protons and neutrons

**Mass Number:** the sum of the number of protons and neutrons in an atom.

= protons + neutrons

Therefore: *mass number – atomic number = number of neutrons*

**Metals:** left of the staircase

Shiny, malleable, and ductile

Conduct electricity

**Non-Metals:** right of the staircase

Solid or gas

Solid non-metals are dull and brittle

Do not conduct electricity

Are called insulators

**Metalloids:** diagonal row between metals and non metals

Have both metallic and non-metallic properties

**Alkali metals:** Group 1 (excluding hydrogen)

Most reactive of all metals (react when exposed to air)

Moving down, reactivity increases.

**Alkaline-earth metals:** Group 2

React when exposed to air and water (reactivity is not as strong as group 1)

**Halogens:** Group 17

Most reactive non-metals

**Nobel gases:** Group 18

Most stable and unreactive elements