

REVISITING THE PERIODIC TABLE

- the periodic table is useful for organizing chemical knowledge
- elements are arranged according to increasing atomic number
- the periodic law states that when elements are arranged in order of increasing atomic number, elements with similar properties occur at regular intervals
- a vertical **column** is known as a group or family
 - the column number indicates the number of valence electrons (electrons in the outermost energy shell)
- a horizontal **row** on the periodic table is called a period

Main Category of Elements on the Periodic Table

Metals:

- found on the left hand side of the periodic table
- many metals are shiny, ductile, malleable and good conductors of electricity and heat

Nonmetals:

- found on the right hand side of the periodic table
- in a solid state most nonmetals are dull, brittle and poor conductors of heat and electricity

Metalloids:

- have properties that lie between those of true metals and true nonmetals

ductile - ability to form into wire

malleable - ability to be hammered into a sheet, or bent into different shapes

brittle - breaks very easily