**Chemistry**: the study of the properties of matter and how matter changes

**Matter**: anything that has mass and takes up space

**Physical**: property a characteristic of a pure substance that can be observed without changing into another substance

**Chemical**: property a characteristic of a pure substance that describes its ability to change into different substances

**Element**: a pure substance that cannot be broken down into any other substances by physical or chemical means

**Compound**: a pure substance made of two or more elements chemically combined in a set ratio

**Mixture**: made up of two or more substances that are together in the same place but are not chemically combined

**Atomic**: number A unique number for each element that equals the number of protons in an atom of that element.

**Atomic**: mass the average mass of an elements atoms, the total mass of both the protons and the neutrons of one atom.

**Atomic**: nucleus The central part of an atom that contains both protons and neutrons.

**Protons**: positively charged subatomic particles

**Neutrons**: a subatomic particle that has no charge

**Electrons**: negatively charged subatomic particles

**Period**: horizontal row of elements

**Group**: vertical column of elements

**Reactivity**: the ease and speed with which an element combines or reacts with other elements.

**Ion**: an atom or group of atoms that has an electric charge

**Polyatomic**: ion ions made of more than one atom