

## Elements, Compounds & Mixtures (Chemistry)

Year 7, Spring Term

<b><i>You will be taught</i></b>	<b><i>You should know</i></b>
that elements are shown in the periodic table and consist of atoms which can be represented by symbols	that an <b>element</b> contains the <u>same</u> type of <b>atom</b> ; that the elements are organised in the <b>periodic table</b>
how elements combine through chemical reactions to form compounds [e.g. <i>water, carbon dioxide, magnesium oxide, sodium chloride, most minerals</i> ] with definite composition	that <b>compounds</b> are made up of <u>different</u> elements joined together and that the properties of a compound differ from those of the constituent elements burning elements in air makes <b>oxides</b> , [e.g. carbon + oxygen -> carbon dioxide; sulphur + oxygen -> sulphur dioxide; iron + oxygen -> iron oxide; magnesium+ oxygen ->magnesium oxide] that how certain pairs of elements can react to form <b>compounds</b> [e.g. iron + sulphur -> iron sulphide] that if a compound is made of two elements the name of the compound ends in ' <b>_ide</b> '; if three or more elements go to make up the compound and one of them is oxygen then the name of the compound usually ends in ' <b>_ate</b> '.
to represent compounds by formulae and to summarise reactions by word equations	how to write <b>word equations</b> , e.g.: hydrochloric acid + iron -> iron chloride + hydrogen
that mixtures [e.g. <i>air, sea water and most rocks</i> ] are composed of constituents that are not combined	that <b>air</b> is a mixture of gases made up of approximately <b>78% nitrogen, 21% oxygen</b> and the relatively small proportion of other gases; that <b>oxygen</b> is used in respiration, in combustion (burning) and in oxidation reactions; it is a product of photosynthesis that <b>carbon dioxide</b> is a product of respiration and a raw material for photosynthesis that compound containing carbon burn to produce carbon dioxide

[http://www.bbc.co.uk/schools/ks3bitesize/science/chemistry/elements\\_com\\_mix\\_intro.shtml](http://www.bbc.co.uk/schools/ks3bitesize/science/chemistry/elements_com_mix_intro.shtml)