

## Chemical and Physical Changes (Chemistry)

Year 6, Spring Term

<b><i>You will be taught</i></b>	<b><i>You should know</i></b>
to describe changes that occur when materials are mixed [e.g. <i>adding salt to water</i> ]	how to carry out simple dissolving experiments
to describe changes that occur when materials [e.g. <i>water, clay, dough</i> ] are heated or cooled	
that temperature is a measure of how hot or cold things are	
about reversible changes, including dissolving, melting, boiling, condensing, freezing and evaporating	that heating or cooling can cause a change of state; the names given to these changes, i.e. <b>melting, boiling, condensing, evaporating, freezing / solidifying</b> ; that water expands on freezing, causing pipes to burst and rocks to crack; how to compare different temperatures by feel and by the use of a thermometer; how to read a thermometer scale including values below 0 °C; the boiling point and freezing point of water and the temperature of a healthy human
the part played by evaporation and condensation in the water cycle	how to carry out simple experiments on <b>evaporation</b> and <b>condensation</b> ; how these processes relate to the <b>water cycle</b>
that non-reversible changes [e.g. <i>vinegar reacting with bicarbonate of soda, plaster of Paris with water</i> ] result in the formation of new materials that may be useful	examples of useful non-reversible changes, e.g. making concrete, baking; that air and water are both needed for rusting to occur; simple methods of preventing rusting, e.g. oiling, painting, galvanising, coating with plastic
that burning materials [e.g. <i>wood, wax, natural gas</i> ] results in the formation of new materials and that this change is not usually reversible	simple burning experiments to demonstrate that burning is not reversible; the term <b>fuel</b> ; the term <b>fossil fuel</b> and examples of solid, liquid and gaseous fossil fuels.