



Science Year 8 Curriculum Plan

	Key concept/ Key question	Overview of the unit	Assessment	Cross Curricular Skills	Suggested reading material and websites:
Chemistry 1	<p>Periodic table</p> <p>Metals and acids</p>	<p>Students examine how elements are arranged in the periodic table. Experiments are performed to investigate the properties of elements and to begin to relate this to their atomic structure.</p> <p>The focus is on Groups 1, 7 and 0.</p> <p>Common reactions of metals are considered and how metals are extracted from the Earth. The unit finished by considering a wider range of materials including ceramics and polymers.</p>	<p>Assessment is based around end of topic tests – typically around 45 min. at the end of each unit.</p> <p>These tests contain a mixture of recall and application questions based on the current topic.</p> <p>In addition, students will periodically sit multi topic tests based on all material covered so far (3 per year). This is to begin to prepare students for the linear</p>	<p>Literacy: Considering historical sources, Mendeleev and the periodic table. Accuracy of accounts.</p> <p>Numeracy: Interpreting bar graphs. Data analysis – melting points and boiling points</p> <p>Thinking Skills: Role of creativity and imagination in coming up with periodic table.</p>	<p>Students are following the revised KS3 national curriculum for science the contents of which can be downloaded here:</p> <p>https://www.gov.uk/national-curriculum</p> <p>All students have access to Kerboodle which contains a digital copy of the Year 8 Activate science text book.</p> <p>https://www.kerboodle.com/users/login</p>

<p>Chemistry 2</p>	<p>Separation techniques</p>	<p>A range of experiments are used to investigate different separation techniques including chromatography, distillation and filtration.</p>		<p>Literacy: Vocabulary and spelling of key words</p> <p>Numeracy: Measuring temperature, positive and negative numbers. Weight g to Kg conversion. Constructing tables and line graphs.</p> <p>Thinking Skills: Climate change – considering the strength of evidence to form a conclusion.</p>	
<p>Physics 2</p>	<p>Energy transfer</p>	<p>Energy stores and transferred are outlined. The idea that some energy transfers are useful and some lead to energy being wasted leads to the concept of efficiency.</p>		<p>Literacy: Being able to select correct equations to use when given problems in text format</p> <p>Numeracy: Power calculations. Concept of calculating efficiency. Conversion joules to watts to kw hours. Work done equations</p> <p>Thinking Skills: Using conceptual models to understand energy. Linking concepts – energy to work done to efficiency.</p>	
	<p>The Earth</p>	<p>Work on the rock cycle from KS2 is consolidated. The impact of human activity on the Earth's climate is then considered.</p>			
	<p>Motion and pressure</p>	<p>Y7 work on forces is revisited in the context of speed and pressure. The unit then looks at turning forces linking back to ideas about work and power.</p>			

