

## Key Stage 3 Curriculum Map 2019 - 2020

### Term 1

Subject: Science		Year Group: 8		
Week/Date	Focus/Topic	Objectives	Key Skills	Home Learning/Resources
1 Sept 2 <sup>nd</sup> -5 <sup>th</sup>	<ul style="list-style-type: none"> <li>Baseline assessments, curriculum orientation and expectations</li> </ul>			
2 Sept 8 <sup>th</sup> -12 <sup>th</sup>	<ul style="list-style-type: none"> <li>The periodic table</li> <li>Reactivity series</li> <li>Atomic model and electronic configuration</li> </ul>	<ul style="list-style-type: none"> <li>To identify how many protons, electrons and neutrons there is in an element</li> <li>To be able to place metals in order of most to least reactive</li> <li>To describe and draw atoms</li> </ul>	<ul style="list-style-type: none"> <li>Recall, application, working scientifically, maths in science</li> </ul>	<ul style="list-style-type: none"> <li>Start acids and alkali home learning project</li> </ul>
3 Sept 15 <sup>th</sup> -19 <sup>th</sup>	<ul style="list-style-type: none"> <li>Covalent bonds</li> <li>Giant covalent structures</li> <li>Ionic bonding</li> </ul>	<ul style="list-style-type: none"> <li>To draw and explain covalent bonds</li> <li>To be able to identify and describe properties of giant covalent structures</li> <li>To be able to identify ionic bonds and draw dot and cross diagrams</li> </ul>	<ul style="list-style-type: none"> <li>Recall, application, working scientifically, maths</li> </ul>	<ul style="list-style-type: none"> <li>Continue acids and alkali home learning project</li> </ul>
4 Sept 22 <sup>rd</sup> -26 <sup>th</sup>	<ul style="list-style-type: none"> <li>Collision theory and rate of reaction</li> <li>Effect of surface area on rate of reaction</li> </ul>	<ul style="list-style-type: none"> <li>To explain what is meant by collision theory</li> <li>To describe the effect surface area has on the rate of reaction</li> </ul>	<ul style="list-style-type: none"> <li>Recall, application, working scientifically</li> </ul>	
5 Sept 29 <sup>th</sup> -Oct 3 <sup>rd</sup>	<ul style="list-style-type: none"> <li>Effect of concentration on the rate of reaction</li> </ul>	<ul style="list-style-type: none"> <li>To explain the effect of concentration on the rate of a reaction</li> </ul>		
6 Oct 6 <sup>th</sup> -10 <sup>th</sup>	<ul style="list-style-type: none"> <li>Effect of temperature on rate of reaction</li> </ul>	<ul style="list-style-type: none"> <li>To explain the effect of temperature on the rate of reaction</li> </ul>		

	<ul style="list-style-type: none"> <li>Effect of catalyst on the rate of reaction</li> </ul>	<ul style="list-style-type: none"> <li>To describe the effect of a catalyst on the rate of reaction</li> </ul>		
7 Oct 13 <sup>th</sup> -17 <sup>th</sup>	<ul style="list-style-type: none"> <li>Haber process</li> <li>Acids and alkalis</li> <li>Types of acid and concentration</li> </ul>	<ul style="list-style-type: none"> <li>To describe the basic process of the harder process</li> <li>To identify acids and alkalis</li> <li>To calculate the concentration of an acid and alkali</li> </ul>	<ul style="list-style-type: none"> <li>Recall, application, working scientifically</li> </ul>	<ul style="list-style-type: none"> <li>Finish acids and alkali home learning project</li> </ul>
8 Oct 20 <sup>th</sup> -24 <sup>th</sup>	Mid Term Break			
9 Oct 27 <sup>th</sup> -Oct 31 <sup>st</sup>	<ul style="list-style-type: none"> <li>Neutralisation reaction</li> <li>Naming and making salts</li> <li>Yield</li> </ul>	<ul style="list-style-type: none"> <li>To state what is meant by neutralisation and write word equations</li> <li>To describe ways in which salt is made</li> <li>To state what is meant by yield and calculate percentage yield</li> </ul>	<ul style="list-style-type: none"> <li>Recall, application, working scientifically, maths</li> </ul>	<ul style="list-style-type: none"> <li>Start chemical reactions home learning project</li> </ul>
10 Nov 3 <sup>rd</sup> -7 <sup>th</sup>	<ul style="list-style-type: none"> <li>Precipitation reaction</li> <li>Making copper sulfate</li> <li>Symbol equations and relative formula mass</li> </ul>	<ul style="list-style-type: none"> <li>To state what is meant by a precipitation reaction</li> <li>To plan a practical for making copper sulfate</li> <li>To calculate relative formula mass</li> </ul>		
11 Nov 10 <sup>th</sup> -14 <sup>th</sup>	<ul style="list-style-type: none"> <li>Soft and hard water</li> <li>Purifying water</li> </ul>	<ul style="list-style-type: none"> <li>To describe how to test for different water types</li> <li>To describe stages in water purification</li> </ul>	<ul style="list-style-type: none"> <li>Recall, application, working scientifically</li> </ul>	<ul style="list-style-type: none"> <li>Continue chemical reactions home learning project</li> </ul>
12 Nov 17 <sup>th</sup> -21 <sup>st</sup>	<ul style="list-style-type: none"> <li>Extracting metals</li> <li>Electrolysis</li> </ul>	<ul style="list-style-type: none"> <li>To state what is meant by reduction and displacement</li> <li>To understand that electrolysis is another method of extracting metals</li> </ul>		
13 Nov 24 <sup>th</sup> -28 <sup>th</sup>	<ul style="list-style-type: none"> <li>Polymers</li> </ul>	<ul style="list-style-type: none"> <li>To describe the process of making polymers</li> </ul>		

14 Dec 1 <sup>st</sup> -5 <sup>th</sup>	<ul style="list-style-type: none"> <li>Life cycle assessment</li> </ul>	<ul style="list-style-type: none"> <li>To discuss the importance of LCA</li> </ul>	<ul style="list-style-type: none"> <li>Recall, application and working scientifically</li> </ul>	<ul style="list-style-type: none"> <li>Continue chemical reactions home learning project</li> </ul>
15 Dec 8 <sup>th</sup> -12 <sup>th</sup>	<ul style="list-style-type: none"> <li>Reducing the impact in the environment</li> </ul>	<ul style="list-style-type: none"> <li>To describe the impact of combustion on the environment</li> </ul>		<ul style="list-style-type: none"> <li>Finish chemical reactions home learning project</li> </ul>
Winter Break: December 13 <sup>th</sup> – January 2 <sup>nd</sup>				