

The English Martyrs Catholic School and Sixth Form College

<u>Chemistry Year 7</u>	<u>Module 1</u>	<u>Module 2</u>	<u>Module 3</u>
<u>Topic Theme and Intent</u>	Students are introduced to the idea of working like a scientist and complete a full investigation. Students learn about Particles – using the particle model to explain the properties of materials in the wider world. This topic is studied so that students can understand the behaviour of materials and so they can describe chemical processes.	Students learn about Reactions – They will identify elements and compounds , and be able to represent chemical reactions using equations . This topic is studied so that students scientifically describe the differences in materials and the evidence for reactions taking place including changes in energy .	Students will learn about specific types of chemical reactions and involving acids and alkalis . This topic is studied so that students can identify specific types of everyday chemical reactions and understand why they happen and why they can be dangerous .
<u>Knowledge</u>	<ul style="list-style-type: none"> States of matter and their properties. The particle model Changing states Diffusion and Gas Pressure 	<ul style="list-style-type: none"> Elements compounds and mixtures Chemical formulae Identifying chemical reactions Conservation of mass Exothermic and Endothermic reactions. 	<ul style="list-style-type: none"> Acids and Alkalis. Indicators and pH. Neutralisation. Making Salts.
<u>Skills</u>	<ul style="list-style-type: none"> Investigate the how changes of state are linked to changes of temperature. Plot data and describe patterns. 	<ul style="list-style-type: none"> Classify materials. Make observations of chemical processes and use models to explain what is taking place. 	<ul style="list-style-type: none"> Carry out experiments safely. Measure energy changes in reactions. Use chemical reactions to make a new product.
<u>Literacy Links</u>	<p>Reading – Students will read about changes of state and properties of materials.</p> <p>Writing – Students start to communicate scientific ideas and concepts through writing.</p> <p>Oracy – Students start to use scientific vocabulary in discussion and question and answering.</p>	<p>Reading – Students will read about atoms, elements and compounds.</p> <p>Writing – Students practise communicating scientific ideas and concepts through writing.</p> <p>Oracy – Students practise the use scientific vocabulary in discussion and question and answering.</p>	<p>Reading – Students will read about chemical reactions involving acids and alkalis.</p> <p>Writing – Students will communicate scientific ideas and concepts through writing.</p> <p>Oracy – Students use scientific vocabulary in discussion and question and answering.</p>
<u>Essential Vocabulary</u>	State, particles, expand, contract, diffusion	Atoms, elements, compounds, reactions, energy, conservation of mass, exothermic, endothermic.	Acids, Alkalis, indicators, neutralisation, pH scale.

Disciplinary Reading

CGP Books – KS3 Science



Reading for Pleasure

P. Pullman – His Dark Materials



DK Publishing - The Periodic Table: Facts at your fingertips



S. Basher and D. Green - Chemistry: Getting a big reaction



