

KEVICC KS3 Curriculum:	Subject: Science	Key terms and vocabulary.
Year: 7 Term: Across the year	Topic: Chemistry	<i>Which words will be explicitly taught &amp; how frequently will understanding be checked? How will assimilation of new vocab be checked?</i>
<p><b>What is the essential knowledge from this unit? What do students need to remember and understand?</b></p> <p><b>Content - Autumn term – Particles</b></p> <ul style="list-style-type: none"> <li>Students will learn about particles</li> <li>Students will be able to describe the particle model and use it to explain the states of matter and changes of state</li> <li>Students will discover how particle theory can be used to explain diffusion and pressure</li> </ul> <p>Key practicals – heating stearic acid, demo of gas pressure</p> <p><b>Spring Term – Elements, atoms and compounds and Chemical reactions</b></p> <ul style="list-style-type: none"> <li>Students will learn about the atoms that make up everything on Earth and beyond</li> <li>Students will be able to use the periodic table to name elements</li> <li>Students will be taught what the terms element, compound and mixture mean</li> <li>Students will discover what chemical formula mean build them into word equations</li> <li>Students will be given the chance to explore and carry out chemical reactions including combustion, thermal decomposition and endothermic and exothermic reactions</li> <li>Students will be able to discuss conservation of mass</li> </ul> <p>Key practicals– making a compound (possibly FeS, but various reactions can be used), selection of simple chemical reactions including combustion and exo/endothermic reactions</p> <p><b>Summer term – Acids and alkalis</b></p> <ul style="list-style-type: none"> <li>Students will learn about acids and alkalis and how they behave</li> <li>Students will learn about indicators and the pH scale</li> <li>Students will discover how neutralisation takes place and the products of this reaction</li> </ul> <p>Key practicals – testing substances for their pH, neutralisation reactions and making a salt</p>		<p><i>Boiling, boiling point, change of state, condensation, diffusion, evaporation, freezing, gas, liquid, melting, mixture, particle, solid, state of matter, sublimation, substance,</i></p> <p><i>Atom, chemical formula, chemical symbol, compound, element, molecule, Periodic Table, balanced symbol equation, catalyst, chemical reaction, combustion, conservation of mass, decomposition, endothermic, exothermic, fossil fuel, fuel, non-renewable, oxidation, physical change, product, reactant, reversible, thermal decomposition, word equation, acid, alkali, base, concentrated, corrosive, dilute, indicator, litmus, neutral, neutralisation, pH scale, salt, universal indicator.</i></p>
<p><b>What prior learning supports understanding of this content?</b></p> <p><b>From KS2</b></p> <ul style="list-style-type: none"> <li>The different properties of different materials make them suitable for different uses</li> <li>Materials exist as solids, liquids and gases</li> <li>The state of a material depends on the temperature</li> <li>Changes of state (melting, freezing, evaporating, boiling and condensing) are reversible</li> <li>Changes that form new materials are not reversible and include oxidation and reactions of acids</li> </ul>	<p><b>How does this content link to future learning?</b></p> <p><b>For GCSE Chemistry</b></p> <ul style="list-style-type: none"> <li>Students will investigate changes of state in more depth and develop their understanding of how atoms bond</li> <li>Students will continue to expand their understanding of elements and the periodic table</li> <li>Students will move on to looking at compound and reactions in more detail including neutralisation, combustion and exothermic/endothermic reactions</li> <li>Students will be taught how to use and write word and symbol equations</li> </ul>	
<p><b>Reading:</b> <i>Where in the unit are students supported to read complex academic text?</i></p> <p>Reading activities from textbook and comprehension activities in the integrated Skills Tests that run throughout the year. Scientific literacy also includes reading graphs and tables in order to extract meaning from data.</p>	<p><b>Writing:</b> <i>Independent writing tasks and how they are structured</i></p> <p>Writing skills include concise and accurate communication that includes appropriate keywords. Scientific literacy includes graphs and tables to effectively communicate data. Conclusions to practical work is the most important form of scientific communication.</p>	
<p><b>Key assessments:</b></p> <p>Chemistry questions in Autumn and Spring 1, Spring 2 and Summer assessments</p> <p><b>How will feedback be received?</b></p> <p>Students will be given feed back via DIRT sheets after each topic, regular feedback on skills tasks 12 times a year and tests 4 times a year. The students will be actively involved in all of these processes via 'purple pen'</p> <p><b>What will be seen in books?</b></p> <p>Books will include notes on the content and practical/skills along with feedback via DIRT sheets (see above), skills sheets and tests will be found with purple pen relating to them all.</p>		<p><i>Vocabulary will be modelled by teachers and tested in periodic short tests and scientific literacy is marked during feedback. Scientific communication is directly reported to parents as part of the college report</i></p>

