



Curriculum Plans – Key Stage 4 Chemistry

Please find below a detailed outline of the curriculum covered in Chemistry through Year 10 in Key Stage 4.

Year 10

Block 1	Block 2	Block 3	Block 4	Block 5	Block 6	Block 7
<p>States of Matter (Unit 1)</p> <ul style="list-style-type: none"> Review of unit 1 <p>Atoms and Elements (Unit 2 and 3)</p> <ul style="list-style-type: none"> Meet the elements More about atoms How electrons are arranged Isotopes and A_r Compounds, mixtures and chemical changes Why do atoms form bonds? The ionic bond The covalent bond Covalent Compounds Comparing ionic and covalent compounds Giant Covalent structures The bonding in metals 	<p>Reacting masses and chemical equations (Unit 4)</p> <ul style="list-style-type: none"> The names of formulae of compounds Equations for chemical reactions The masses of atoms, molecules and ions Calculations about mass and % <p>Using moles (Unit 5)</p> <ul style="list-style-type: none"> The mole Calculations from equations Reactions involving gases The concentration of a solution Finding the empirical formula From empirical to final formula Finding % yield and % purity 	<p>Redox reactions (Unit 6)</p> <ul style="list-style-type: none"> Oxidation and reduction Redox and electron transfer Redox and oxidising numbers Oxidising and reducing agents <p>Electricity and chemical changes (Unit 7)</p> <ul style="list-style-type: none"> Conductors and non-conductors The principles of electrolysis The reactions at the electrodes 	<p>The rate of reaction (Unit 9)</p> <ul style="list-style-type: none"> Introducing rates of reaction Measuring the rate of reaction Changing the rate (part 1 and 2) Explaining rate changes Catalysts <p>Reversible reactions and equilibrium (Unit 10)</p> <ul style="list-style-type: none"> Reversible reactions Shifting the equilibrium The Haber process The Contact Process 	<p>Energy Changes in Reactions (Unit 8)</p> <ul style="list-style-type: none"> Energy changes in reactions A closer look at enthalpy changes Calculating enthalpy changes The hydrogen-oxygen fuel cell <p>Acids, bases and salts (Unit 11)</p> <ul style="list-style-type: none"> Acids and bases A closer look at acids and alkalis The reactions of acids and bases A closer look at neutralisation Oxides Making salts (part 1 and 2) Finding concentration by titration 	<p>The Periodic Table (Unit 12)</p> <ul style="list-style-type: none"> The Periodic Table: an overview Group 1: Alkali Metals Group 7: the halogens More about the trends The transition elements How the Periodic Table developed 	<p>Revision</p> <p>Retrieval</p> <p>Assessment</p> <p>Review</p>
End of Assessment	End of Unit Assessment	End of Unit Assessment	End of Unit Assessment	End of Unit Assessment	End of Unit Assessment	End of Unit Assessment
		Data Average for Autumn Report		Data Average for Spring Report		Data Average for Summer Report
Autumn			Spring		Summer	



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