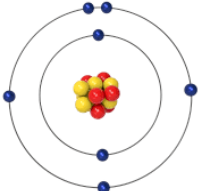
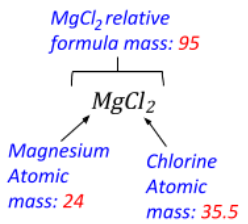
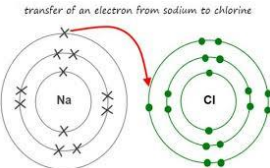
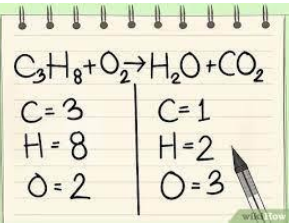
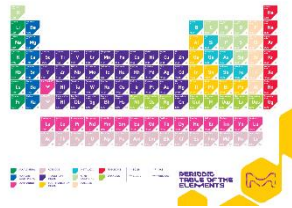
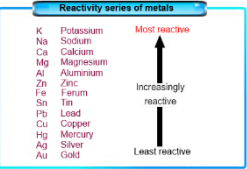


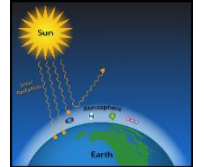

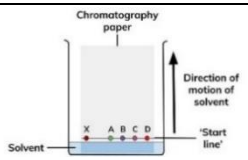
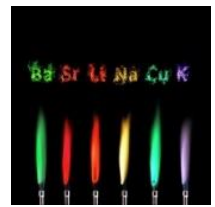
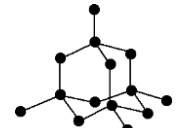
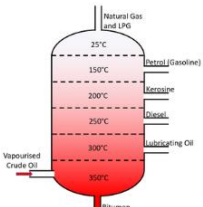
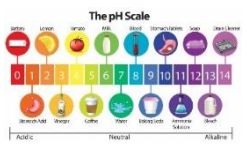
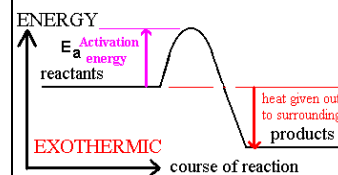
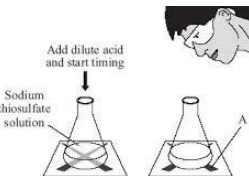


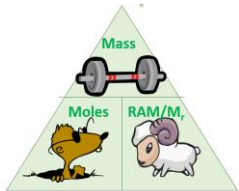
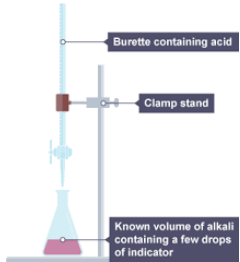
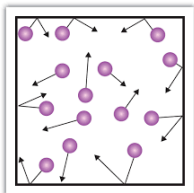
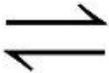

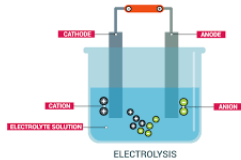


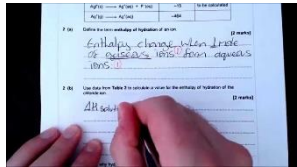

GCSE Chemistry Curriculum Map 2024-2025

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 9	<p>Recap atoms, elements, compounds and mixtures from Year 7</p> <p><u>Atomic Structure</u></p> <p>Atomic Structure and size of atoms</p> <p>Electronic structure</p> <p>Isotopes and calculating relative atomic mass</p>  <p>Calculating relative formula mass & percentage composition</p> <p><i>MgCl₂ relative formula mass: 95</i></p> 	<p>transfer of an electron from sodium to chlorine</p>  <p><u>Bonding</u></p> <p>Chemical bonds including ionic and covalent bonding</p> <p><u>Chemical Equations</u></p> <p>Conservation of mass</p> <p>Balancing equations</p> 	<p><u>The Periodic Table</u></p> <p>The periodic table</p> <p>Development of the periodic table</p> <p>Metals and non-metals</p> <p><u>Groups in the Periodic Table</u></p> <p>Group 1, group 7 and group 0</p> <p>Properties of transition metals</p>  <p><u>States of Matter</u></p> <p>The three states of matter and state symbols</p>	<p><u>Reactivity series of metals</u></p>  <p><u>Reactivity of metals</u></p> <p>Metal oxides</p> <p>The reactivity series</p> <p>Extraction of metals and reduction</p>  <p><u>Corrosion</u></p> <p>Corrosion and its prevention</p> 	<p><u>Using the Earth's resources and sustainable development</u></p> <p>Potable water</p> <p>Waste water treatment</p> <p>Alternative methods of extracting metals</p> <p>Life cycle assessment</p> <p>Ways of reducing the use of resources</p>  <p>Greenhouse gases & human activities which increase them</p> <p>Climate change</p> <p>The carbon footprint and its reduction</p>  <p>Atmospheric pollutants</p>	

GCSE Chemistry Curriculum Map 2024-2025

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 10	 <p><u>Chemical Analysis</u></p> <p>Purity & formulations Chromatography</p> <p>Tests for hydrogen, oxygen, carbon dioxide and chlorine</p>  <p>Flame tests</p> <p>Testing metal ions using precipitation</p> <p>Tests for carbonates, halides, sulfates</p> <p>Instrumental methods including flame emission spectroscopy</p>	<p><u>Properties of Matter</u></p> <p>Properties of ionic compounds, small molecules & metals</p> <p>Metallic bonding Alloys</p> <p>Giant covalent structures including diamond and graphite</p>  <p>Graphene and fullerenes</p> <p><u>Nanoparticles</u></p> <p>Sizes of particles and their properties</p> <p>Uses of nanoparticles</p>	<p><u>Organic Chemistry</u></p>  <p>Crude oil, hydrocarbons and alkanes</p> <p>Fractional distillation and petrochemicals</p> <p>Properties of hydrocarbons</p> <p>Cracking</p> <p>Structure and formulae of alkenes</p> <p>Reactions of alkenes</p> <p>Addition polymerization</p>	<p><u>Organic Chemistry continued</u></p> <p>Ceramics, polymers and composites</p> <p>Alcohols</p> $\text{R}-\text{O}-\text{H}$ <p>Carboxylic acids and esters</p> <p><u>Reactions of Acids</u></p>  <p>Reactions of acids with metals</p> <p>Neutralisation of acids and salt production</p> <p>Soluble salts</p>	<p><u>Reactions of Acids continued</u></p> <p>The pH scale and neutralisation</p> <p>Strong and weak acids in terms of ionisation and a comparison with dilute and concentrated</p> <p><u>Energy Changes</u></p>  <p>Energy transfer during exothermic and endothermic reactions</p> <p>Reaction Profiles</p> <p>Bond enthalpy calculations</p>	 <p>Time how long it takes for the cross to disappear</p> <p><u>Rates</u></p> <p>Calculating rates of reactions</p> <p>Collision theory and activation energy</p> <p>Factors which affect the rates of chemical reactions</p> <p>Catalysts</p>

GCSE Chemistry Curriculum Map 2024-2025

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 11	<p><u>Quantitative Chemistry</u></p> <p>Uncertainty</p> <p>Moles</p>  <p>Reacting masses</p> <p>Using moles to balance equations</p> <p>Concentration</p> <p>Titration (separates only)</p> 	<p><u>Quantitative Chemistry Continued</u></p> <p>Percentage yield</p> <p>Atom economy</p> <p>Volumes of gases (separates only)</p>  <p><u>Equilibrium</u></p> <p>The energy change of reactions</p> <p>Reversible reactions</p> <p>Equilibrium</p> <p>The effect of changing conditions on equilibrium</p> 	 <p><u>The Haber process and NPK fertilisers (separates only)</u></p> <p>The Haber process</p> <p>Production and uses of NPK fertilisers</p>  <p><u>Electrolysis</u></p> <p>Electrolysis of molten ionic compounds</p> <p>Using electrolysis to extract metals</p> <p>Electrolysis of aqueous solutions</p> <p>Half equations</p> <p>Oxidation & Reduction</p>	<p><u>Chemical Cells & Fuel Cells (separates only)</u></p> <p>Cells and batteries</p> <p>Fuel cells</p>  <p><u>Polymers (separates only)</u></p> <p>Condensation polymerisation</p> <p>Amino acids</p> <p>Naturally occurring polymers</p> 		

GCSE Chemistry Curriculum Map 2024-2025