

Y10 CHEMISTRY

SCIENCE AT YARDLEYS

INTENT: Science helps students gain an understanding of the world around them, from the micro-level of particles and atoms to the macro-level of our expanding universe. It encourages students to question and enquire in order to learn more. We want our students to acquire the scientific knowledge and skills to meet their academic, practical and “real life” challenges of the future.

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Year 10 will build on this knowledge and focus on the detailed chemistry knowledge building on the year 9 knowledge. This includes collision theory and rates of reaction, metals and extraction methods, factors and equilibrium, quantitative chemistry and atmospheric chemistry.

YEAR 10

	Rates and Energy Changes	Extracting Metals and Equilibria	Separate Chemistry 1 (Part 1)	Separate Chemistry 1 (Part 2)	Separate Chemistry 1 (Part 3)	Fuels and Earth Science (Part 2)
SUBSTANTIVE KNOWLEDGE	<u>Topic C7</u> <ul style="list-style-type: none"> Collision theory and rates Energy Changes 	<u>Topic C4</u> <ul style="list-style-type: none"> Metal Reactions Metal Extraction Recycling Metals 	<u>Topic C5</u> <ul style="list-style-type: none"> Chemical Equilibrium Chemical Cells and Fuel Cells 	<u>Topic C5</u> <ul style="list-style-type: none"> Corrosion and Alloys Titration 	<u>Topic C5</u> <ul style="list-style-type: none"> Quantitative Chemistry <u>Topic C8</u> <ul style="list-style-type: none"> Hydrocarbons and Crude Oil 	<u>Topic C8</u> <ul style="list-style-type: none"> Combustion Atmospheric Chemistry
DISCIPLINARY KNOWLEDGE	<ul style="list-style-type: none"> Use scientific knowledge to experimental evidence Use appropriate apparatus when conducting experiments Use mathematical concepts 	<ul style="list-style-type: none"> Observe experimental evidence Use scientific knowledge to make predictions Evaluate evidence using scientific knowledge 	<ul style="list-style-type: none"> Observe experimental evidence Use scientific knowledge to make predictions Evaluate evidence using scientific knowledge 	<ul style="list-style-type: none"> Observe experimental evidence Use scientific knowledge to experimental evidence Use mathematical concepts Use appropriate apparatus when conducting experiments 	<ul style="list-style-type: none"> Use mathematical concepts Observe experimental evidence 	<ul style="list-style-type: none"> Observe experimental evidence Evaluate evidence using scientific knowledge Identify trends and patterns in data