Y11 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.
Y11 CHEMISTRY
Year 11 will build on this knowledge and focus on the detailed chemistry knowledge building on the year 10 knowledge. This includes testing ions and organic chemistry.

YEAR 11

	Separate Chemistry	Key Practicals and Synoptic Links	Key Practicals and Synoptic Links
SUBSTANTIVE KNOWLEDGE	• Ions testing • Organic Chemistry	• Core Practical 1: Investigate the composition of inks using simple distillation and paper chromatography • Core Practical 2: Investigate the change in pH on adding a base to an acid • Core Practical 3: Investigate the preparation of pure, dry hydrated crystals of salt • Core Practical 4: Investigating electrolysis • Core Practical 5: Carry acid-alkali titrations	• Core Practical 6: Investigate the effects of changing the conditions of a reaction on the rates of chemical reactions • Core Practical 7: Identify the ions in unknown salts using chemical tests • Core Practical 8: Investigate the temperature rise produced in a known mass of water by the combustion of the alcohols
DISCIPLINARY KNOWLEDGE	• Use scientific knowledge to experimental evidence • Use models to demonstrate scientific knowledge • Observe experimental evidence • Evaluate evidence using scientific knowledge	• To carry out the practical methods safely • Take measurements using appropriate equipment. • To record experimental data in a suitable format • To construct suitable graphs (where necessary) • To analyse the trends and patterns shown by the results/graphs • To evaluate each core practical experiment by looking at possible errors and suggesting improvements • To relate the purpose of the core practical experiment to context/real life applications.	