

2024/ 2025	AUTUMN		SPRING		SUMMER	
	HT1	HT2	HT3	HT4	HT5	HT6
Y 7	Area of study <b>Science Skills</b> <b>Chemistry</b>  Key concepts/ Knowledge Investigation Classifying Material  Assessment method  End of Topic Test	Area of study <b>Biology</b> <b>Chemistry</b>  Key concepts/ Knowledge Microscopes & Cells Atoms, Elements & Compounds  Assessment method  End of Topic Test	Area of study <b>Biology</b> <b>Physics</b>  Key concepts/ Knowledge Nutrition and Digestion Electrical Circuits  Assessment method  End of Topic Test	Area of study <b>Chemistry</b> <b>Physics</b>  Key concepts/ Knowledge Chemical Reactions Energy  Assessment method  End of Topic Test	Area of study <b>Biology</b>  Key concepts/ Knowledge Plant Reproduction  Assessment method  End of Topic Test	Area of study <b>Physics</b>  Key concepts/ Knowledge Forces & Motion  Assessment method  End of Topic Test
	Area of study <b>Science Skills</b> <b>Chemistry</b>  Key concepts/ Knowledge Investigation Gas Exchange  Assessment method End of Topic Test	Area of study <b>Chemistry</b> <b>Physics</b>  Key concepts/ Knowledge Sorting Materials Magnetism & Space  Assessment method End of Topic Test	Area of study <b>Biology</b> <b>Physics</b>  Key concepts/ Knowledge Inheritance & Variance Generating Electricity  Assessment method End of Topic Test	Area of study <b>Chemistry</b>  Key concepts/ Knowledge Chemical Changes  Assessment method End of Topic Test	Area of study <b>Physics</b>  Key concepts/ Knowledge Waves  Assessment method End of Topic Test	Area of study <b>Investigation skills</b>  Key concepts/ Knowledge Planning/Obtaining evidence/Analysing/Concluding/Evaluating  Assessment method End of Topic Test <b>END OF YEAR EXAM</b>
	Area of study <b>Biology</b>  Key concepts/ Knowledge Investigation skills Ecology & Genetics  Assessment method End of Topic Test	Area of study <b>Chemistry</b>  Key concepts/ Knowledge Producing Materials  Assessment method End of Topic Test	Area of study <b>Physics</b>  Key concepts/ Knowledge Motion and forces  Assessment method End of Topic Test	Area of study <b>Biology</b>  Key concepts/ Knowledge Health & Disease Environment  Assessment method End of Topic Test	Area of study <b>Physics</b>  Key concepts/ Knowledge Non-Renewable vs Renewable Energy  Assessment method End of Topic Test	Area of study <b>Chemistry</b>  Key concepts/ Knowledge Impact of human activity on the environment  Assessment method <b>END OF YEAR EXAM</b>

2024/ 2025	AUTUMN		SPRING		SUMMER	
	HT1	HT2	HT3	HT4	HT5	HT6
Y 10	Area of study   <b>OCR Gateway Syllabus</b> <b>Biology</b>  Key concepts/ Knowledge Cell Level Systems B1  Assessment method End of Topic Test	Area of study <b>Chemistry</b> <b>Physics</b>  Key concepts/ Knowledge Particles C1 Matter P1  Assessment method End of Topic Test	Area of study <b>Biology</b>  Key concepts/ Knowledge Scaling Up   B2  Assessment method End of Topic Test	Area of study <b>Physics</b>  Key concepts/ Knowledge Forces   P2  Assessment method End of Topic Test	Area of study <b>Chemistry</b>  Key concepts/ Knowledge Elements, compounds and mixtures C2  Assessment method End of Topic Test	Area of study <b>Biology</b>  Key concepts/ Knowledge Organism Level B3  Assessment method End of Topic Test
	Area of study   <b>OCR Syllabus</b> <b>Chemistry</b> <b>Physics</b>  Key concepts/ Knowledge Chemical Reaction C3 Electricity & Magnetism P3  Assessment method End of Topic Test and MOCK EXAM	Area of study   <b>OCR Syllabus</b> <b>Chemistry</b> <b>Physics</b>  Key concepts/ Knowledge Waves & Radiation P4 Chemical Reaction C4/C5  Assessment method End of Topic Test	Area of study   <b>OCR Syllabus</b> <b>Biology</b> <b>Physics</b> Key concepts/ Knowledge Genetics B5 Energy P5  Assessment method End of Topic Test	Area of study   <b>OCR Syllabus</b> <b>Topic 6</b>  Key concepts/ Knowledge <b>Global Challenges</b> <b>Impacts of human activity</b>  Assessment method End of Topic Test	Area of study   <b>OCR Syllabus</b> <b>GCSE Preparation</b>  Key concepts/ Knowledge <b>Revision All Topics</b>  Assessment method <b>GCSE Exam Preparation</b>	<b>GCSE EXAM</b>

## SKILLS FOR LIFE/ FUTURE LEARNING AND EMPLOYMENT

Working scientifically Through the content across all three disciplines, students should be taught so that they develop understanding and first-hand experience of:  
The development of scientific thinking

- The ways in which scientific methods and theories develop over time
- Using a variety of concepts and models to develop scientific explanations and understanding
- Appreciating the power and limitations of science and considering ethical issues which may arise
- Explaining every day and technological applications of science; evaluating associated personal, social, economic and environmental implications; and making decisions based on the evaluation of evidence and arguments
- Evaluating risks both in practical science and the wider societal context, including perception of risk
- Recognising the importance of peer review of results and of communication of results to a range of audiences.

Experimental skills and strategies

- Using scientific theories and explanations to develop hypotheses
- Planning experiments to make observations, test hypotheses or explore phenomena
- Applying a knowledge of a range of techniques, apparatus, and materials to select those appropriate both for fieldwork and for experiments
- Carrying out experiments appropriately, having due regard to the correct manipulation of apparatus, the accuracy of measurements and health and safety considerations
- Recognising when to apply a knowledge of sampling techniques to ensure any samples collected are representative
- Making and recording observations and measurements using a range of apparatus and methods
- Evaluating methods and suggesting possible improvements and further investigations.

Analysis and evaluation

- Applying the cycle of collecting, presenting and analysing data, including:
- Presenting observations and other data using appropriate methods
- Translating data from one form to another
- Carrying out and representing mathematical and statistical analysis
- Representing distributions of results and making estimations of uncertainty
- Interpreting observations and other data, including identifying patterns and trends, making inferences and drawing conclusions
- Presenting reasoned explanations, including relating data to hypotheses
- Being objective, evaluating data in terms of accuracy, precision, repeatability and reproducibility and identifying potential sources of random and systematic error
- Communicating the scientific rationale for investigations, including the methods used, the findings and reasoned conclusions, using paper-based and electronic reports and presentations.

Vocabulary, units, symbols and nomenclature

- Developing their use of scientific vocabulary and nomenclature
- Recognising the importance of scientific quantities and understanding how they are determined
- Using SI units and IUPAC chemical nomenclature unless inappropriate
- Using prefixes and powers of ten for orders of magnitude (e.g. tera, giga, mega, kilo, centi, milli, micro and nano)
- Interconverting units • using an appropriate number of significant figures in calculations.