

## Science –

### Key Stage 3 & 4

The curriculum is designed to engage our students through the use of interesting and relevant topics covering key aspects of National Curriculum; fostering an appreciation of science and its impact on the world. Our KS3 course follows the Exploring Science scheme of work. It is clearly divided into biology, chemistry and physics units. Although at KS3 pupils experience chemistry and physics units, there is a focus on biology allowing pupil to prepare more readily for KS4 GCSE curriculum demands.

As well as developing our students' knowledge and understanding of scientific theory, our curriculum has an integrated working scientifically component and a clear focus on literacy and communication that seeks to develop students' confidence in articulating their scientific ideas.

### Working scientifically

Working scientifically is the set of skills that enable someone to work as a scientist. It is on this foundation of skills that the three main areas of content sit. Working scientifically covers both the skills needed for thinking about scientific problems and the skills needed to process and analyse data.

The other essential component of working scientifically is doing things in a scientific way and understanding the use of what has come to be called 'the scientific method'. This forms the essential backbone of what science is: an idea is developed and then rigorously tested to provide evidence upon which an objective opinion can be formed as to whether the original idea is correct.

### Literacy and Communication

Literacy and communication covers a variety of skills, including taking and making notes, summarising information, presenting ideas, title writing,

persuasive writing and arguments. It also covers the 'spoken language' component of the National Curriculum.

### Monitoring progress

Science learning is monitored using a range of formative and summative assessment methods to check student progress. Each individually taught unit is assessed to allow teaching staff to offer effective and targeted intervention and ensure all students make the progress we feel they are capable of. Progress is reported through termly reports, but parents are welcome to contact the school directly for a more detailed discussion about progress at any time throughout the academic year.

	<b>Autumn 1</b>	<b>Autumn 2</b>	<b>Spring 1</b>	<b>Spring 2</b>	<b>Summer 1</b>	<b>Summer 2</b>
Year 6 -7	Cells Tissues Organs and Systems	Current Electricity Magnetism	Ecosystems	Forces	Mixtures and Separation Acids and Alkalis	Sexual Reproduction in Animals
Year 8 – 9 (Year 9 curriculum)	Food and Nutrition (Genetics and Evolution)	Earth and Space (Forces in Motion)	Light (Physics revision)	Plants and their reproduction (Plant growth)	Combustion The periodic Table (Chemistry revision)	Breathing and Respiration (Biology Revision)
Year 10 – 11 OCR Biology for GCSE (foundation paper)	Cell level systems	Scaling up	Organising Level Systems	Community Level Systems	Genes Inheritance and Selection	Global Challenges

#### Key:

<b>Biology units</b>
<b>Chemistry units</b>
<b>Physics units</b>