



KS4 Curriculum Overview - Combined Science

Your child will learn about a range of scientific ideas and concepts while developing their knowledge, skills and understanding of key scientific principles during each half term.

Term	Year 10	Year 11
Autumn 1	<p>Biology</p> <ul style="list-style-type: none"> • Respiration • Digestion <p>Chemistry</p> <ul style="list-style-type: none"> • Structure, bonding & properties <p>Physics</p> <ul style="list-style-type: none"> • Waves • Atomic structure 	<p>Biology</p> <ul style="list-style-type: none"> • Biodiversity <p>Chemistry</p> <ul style="list-style-type: none"> • Atmospheric chemistry <p>Physics</p> <ul style="list-style-type: none"> • Forces
Autumn 2	<p>Biology</p> <ul style="list-style-type: none"> • The heart <p>Chemistry</p> <ul style="list-style-type: none"> • Introduction to quantitative chemistry • Redox reactions <p>Physics</p> <ul style="list-style-type: none"> • Electricity 	<p>Biology</p> <ul style="list-style-type: none"> • Reproduction • Classification <p>Chemistry</p> <ul style="list-style-type: none"> • Formulations & chromatography • Crude oil & hydrocarbons <p>Physics</p> <ul style="list-style-type: none"> • Magnetism
Spring 1	<p>Biology</p> <ul style="list-style-type: none"> • Cell division • Health <p>Chemistry</p> <ul style="list-style-type: none"> • Reactions of acids <p>Physics</p> <ul style="list-style-type: none"> • Electricity 	<p>Biology</p> <ul style="list-style-type: none"> • Adaptation and competition <p>Chemistry</p> <ul style="list-style-type: none"> • Rates & equilibria <p>Physics</p> <ul style="list-style-type: none"> • Electromagnetism
Spring 2	<p>Biology</p> <ul style="list-style-type: none"> • Nervous system • Homeostasis <p>Chemistry</p> <ul style="list-style-type: none"> • Concentration & reacting masses <p>Physics</p> <ul style="list-style-type: none"> • Electricity 	<p>Biology</p> <ul style="list-style-type: none"> • Variation • Evolution <p>Chemistry</p> <ul style="list-style-type: none"> • Resources <p>Physics</p> <ul style="list-style-type: none"> • Exam skills • Revision



KS4 Curriculum Overview – Science Continued.

Through the study of subject your child will be expected to develop the following knowledge, skills and understanding:

Term	Year 10	Year 11
Summer 1	Biology <ul style="list-style-type: none"> • Hormones Chemistry <ul style="list-style-type: none"> • Organic chemistry Physics <ul style="list-style-type: none"> • Forces 	Biology <ul style="list-style-type: none"> • Exam skills • Revision Chemistry <ul style="list-style-type: none"> • Exam skills • Revision T Physics <ul style="list-style-type: none"> • Exam skills • Revision
Summer 2	Biology <ul style="list-style-type: none"> • Organisation of the ecosystem Chemistry <ul style="list-style-type: none"> • Resources Physics <ul style="list-style-type: none"> • Forces 	GCSE Public Examinations

Development of scientific thinking

- Pupils will become confident in their scientific understanding and will become confident to use methods that scientists use to answer questions

Experimental skills and strategies

- Pupils will develop their knowledge of scientific equipment and techniques

Analysis and evaluation

- Pupils will use data analysis skills to display information from a variety of scientific topics

Scientific vocabulary, quantities, units, symbols and nomenclature

- Pupils will use substantive and disciplinary knowledge and be able to problem solve both at school and in their everyday lives

Parents can support their child by asking questions about what your child is studying in science in lessons, watching video tutorials on complex scientific ideas and encourage your child to be aware of science in the news.