



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	Biology - Cells and transport (Year 9 Summer 2) - Communicable disease Chemistry - Atomic structure (Year 9 Summer 2) - Reactivity series (Year 9 Summer 2) - The periodic table - Structure, bonding & properties Physics - Particle model (Year 9 Summer 2) - Atomic structure	Biology - Reproduction Chemistry - Organic chemistry - Atmospheric chemistry Physics - Forces
Autumn 2	Biology - Digestion and respiration Chemistry - Energy changes Physics - Energy	Biology - Homeostasis & hormones Chemistry - Resources Physics - Forces
Spring 1	Biology - The heart and health Chemistry - Introduction to quantitative chemistry Physics - Energy	Biology - Variation and evolution Chemistry - Rates of reaction - Reversible reactions Physics - Magnetism
Spring 2	Biology - Cell division Chemistry - Reactions of metal and redox Physics - Electricity	Biology - Biodiversity Chemistry - Chemical analysis Physics - Electromagnetism



KS4 Curriculum Overview – Science Continued.

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

Term	Year 10	Year 11
Summer 1	Biology - Plant systems & photosynthesis - Adaptation and competition Chemistry - Reactions of acids - Concentration and reacting masses Physics - Specific heat capacity & latent heat	Biology - Exam skills - Revision Chemistry - Exam skills - Revision Physics - Exam skills - Revision
Summer 2	Biology - Ecosystems Chemistry - Electrolysis of aqueous solutions Physics - Waves	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 encouraging your child to be aware of science in the news. Homework will be posted on Google Classroom.