



Science



Intent:

Here in the science department, we are passionate and committed to the teaching and learning in science. Our intentions are to produce students who are independent learners with enquiring minds, who can question and discuss science-based issues that may affect their own lives; and also to foster a lifelong interest and enjoyment in the learning of science.

The curriculum is designed to allow students to investigate science through practical work, whilst allowing them to gain knowledge, develop interpersonal skills, build resilience, and build upon their prior learning. We feel it is our responsibility to use science as a tool to excite students' curiosity about phenomena and events in the world around them.

Implementation:

Our students complete our bespoke curriculum. In KS2, this is a combination of AQA Snap Science and our own Scheme of Work. In KS3, we follow the AQA Scheme of Work. We implement this through the delivery of a high quality of lessons which places learning at the forefront of planning. Students are assessed in a variety of ways, including assessing their practical skills during experiments, feedback on their ability to answer exam questions in formative assessments as well as end-of-topic tests, peer and self-assessment and verbal feedback. This enables our students experience a smooth transition into the local high schools where they will sit their AQA GCSE exams in year 11.

Science is taught over the 3 years with 6 lessons per fortnight for KS3 and 4 lessons for KS2. All classes are taught in our fantastic state-of-the art laboratories which means that all students use high school standard equipment. The topics taught over the 3 years include all 3 sciences, including Science Skills, Electricity, Genes, The Periodic Table and Ecosystems. Lessons are designed to be fun and engaging and can vary from using skittles as electrons to tell us about the Periodic Table through to investigating which is the 'best' biscuit!

The overview shows which topics are taught when.

Year 6

Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Introduction To Science Science skills	Danger low voltage	Body Health and Body pump	The Periodic Table Our changing world	Light up your world	Everything changes

Year 7

Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Organisms Earth <i>Earth structure and Universe Movement and cells</i>	Matter Reactions <i>Particle model and separating mixtures Metals and non- metals and Acids and Alkalis</i>	Energy Waves <i>Energy Costs and Energy Transfer Sound and Light</i>	Genes <i>Variation and Human reproduction</i>	Ecosystems <i>Interdependence and Plant reproduction</i>	Forces 2 Electromagnets <i>Speed and gravity Voltage and Resistance and Current</i>

Year 8

Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Forces 3 Electromagnets 2	Energy 2 Waves 2	Matter 2 Reactions	Earth 2 Organisms 2	Ecosystems 2	Genes 2
<i>Contact forces and Pressure Magnetism and Electromagnetism</i>	<i>Work and Heating and cooling Wave effects and Wave properties</i>	<i>Periodic table and Elements Chemical energy and Types of reaction</i>	<i>Climate and Earth resources Breathing and Digestion</i>	<i>Respiration and Photosynthesis</i>	<i>Evolution and Inheritance</i>

Impact:

This leads onto our **impact**, where we are dedicated to ensuring our students leave Blackminster having made progress in line with their ability, having a solid foundation of knowledge, the skills and confidence to make decisions and the ability to challenge themselves in their own learning. In this current climate of learning with the pandemic, our home learning ensures curriculum continuity so in case of any lock downs or self-isolation, our students will still be able to access their quality education.