

Biology Department KS4 Curriculum Rationale

KS4 Biology

Building on fundamental ideas, met at KS3, the GCSE Biology curriculum is designed to provide students with a comprehensive understanding of biological concepts and principles, preparing them for further study in the subject and for future careers in related fields. The curriculum aims to enable students to develop their knowledge and understanding of the natural world, and to appreciate the relevance of biology to society and the environment.

Through the curriculum, students will be introduced to a range of biological topics, including cell biology, genetics, ecology, and human physiology. They will develop skills in experimental design, data analysis, and critical thinking, and will learn to communicate scientific ideas effectively.

The curriculum is designed to be engaging and relevant to students, making use of real-life examples and current research to bring the subject to life. It is also structured to ensure that students are able to build on their knowledge and understanding of biology over time, with a clear progression of concepts and skills from year to year.

Overall, the GCSE curriculum aims to provide students with a solid foundation in biology, equipping them with the knowledge and skills they need to pursue further study in the subject and to contribute to the wider scientific community.

Pedagogy within the classroom

High expectations of all students regarding behaviour for learning and outcomes.

Pace - Every lesson matters. Lessons are well planned and purposeful. “Do now” activities will be followed by brisk and timed activities.

Challenge - All students are challenged in order for them to make the best possible progress from their individual starting points.

Questioning will be effective in developing student knowledge and understanding, assessing progress and informing teacher planning.

Progression - All learning builds towards an end point. Learners are being prepared for their next stage of education, training or employment at each stage of their learning.

Links to School Improvement Plan

Increase the use of low stakes assessments, revision tools and consolidation resources so that students increase in confidence and remember the content they have been taught in the longer term

Ensure that incisive feedback is in place and that students are given opportunities to respond to it so that students learn from mistakes, close gaps in their learning and ultimately take more responsibility for their own progress.

Literacy - Promote a passion for reading and a thirst for knowledge. Any gaps in reading to be addressed rapidly

Skill Progression

students build on prior knowledge and skills to help them prepare for the next stage of their education.

Skills are consolidated from one year to the next, providing the foundation for increasing challenge.

Work given to students to be more demanding and to match the aims of the ambitious curriculum.

SEN

Working to increase our own knowledge of different areas of SEN and how to differentiate appropriately.

Understanding the SEN needs of all students on the SEN register in the class.

Being flexible and adaptable in teaching approaches to meet the needs of all students, not just those with no SEN

Not seeing the “label” but seeing the child.

Having as high expectations of lower-ability as we do for the highest; recognising that these students may need even more knowledge to plug gaps in their learning than their peers, not less.

Creating a “no-excuses” culture: never letting a child’s SEN become an excuse for inadequate or poor-quality work.