Subject: Biology

Kay Stage 5 Curriculum Plan

Year: 2026/27

Department Information:

8 hours of lessons per fortnight - split between 2 teachers - with 2 additional period 5 lessons that will have directed learning
Home learning - usually past paper questions set weekly by class teacher

Teachers:2026/7 - Mr Colville - Associate Senior Leader for Science / Miss Cheeseman - A Level Biology teacher

Curriculum aims and intent:

OCR Biology A allows students to develop relevant practical skills alongside essential knowledge and understanding of a range of biological concepts and scientific methods.

Biological mathematics and problem-solving skills can be fully integrated into teaching and learning.

Students gain practical skills throughout the course. These are assessed in the written examinations and in the practical endorsement. Activities that could count towards the practical endorsement are indicated in the specification.

This specification has been developed for learners who wish to continue with a study of biology at Level 3. The A level specification has been written to provide progression from GCSE Combined Science or GCSE Biology.
https://www.ocr.org.uk/Images/171736-download-a-level-specification-fi

Assessment:

Informal in class assessment set by teacher
End of topic tests - sat in lessons
September refresher - 90 minute 70 mark AS breadth exam in class
November mock assessment - AS depth paper +30 marks of year 13 content - 100 marks 2 1/4 hours sat in exam conditions
March Mock exams - Full AS level Breadth and Depth papers 70 marks each - sat in exam hall conditions.

Resources used to support learning:

Textbooks
https://www.ocr.org.uk/qualifications/as-and-a-level/biology-a-h020-h420-from-2015/textbooks/

Past paper questions

Home Learning:

All pupils are expected to revisit their lesson notes and add to them using textbook and online sources to consolidate the understanding from the lesson.
Past paper questions will be set weekly by the class teacher.

How parents can help their child:

Laptop to enable access to online resources would be ideal

Hard copy of the textbook and/or revision guide essential

Biozone OCR A workbook would be useful

Term	Summary of work being covered	Knowledge, Understanding and skills assessed	How the work is assessed	Career Links
1	Homeostasis and communication Excretion	Organisms use both chemical and electrical systems to monitor and respond to any deviation from the body's steady state. The kidneys, liver and lungs are all involved in the removal of toxic products of metabolism from the blood and therefore contribute to homeostasis. The kidneys play a major role in the control of the water potential of the blood. The liver also metabolises some toxins that are ingested.	In-class informal assessments - topic based questions and past exam questions End of topic test Winter and March mock exams	microbiologist biochemist medicine research
2	Nervous & hormonal communication	The stimulation of sensory receptors leads to the generation of an action potential in a neurone. Transmission between neurones takes place at synapses. The ways in which specific hormones bring about their effects are used to exemplify endocrine communication and control. Type 1 diabetes is used as an example to demonstrate how medical technology is used to regulate the hormonal control systems.	In-class informal assessments - topic based questions and past exam questions End of topic test Winter and March mock exams	pharmacologist stem cell research biochemical engineer biochemist medicine research
3	plant & animal responses Photosynthesis & respiration	Plant responses to environmental changes are coordinated by hormones, some of which are important commercially. In animals, responding to changes in the environment is a complex and continuous process, involving nervous, hormonal and muscular coordination.	In-class informal assessments - topic based questions and past exam questions End of topic test March mock exams	biochemical engineer biochemist medicine research
4	Genetics & evolution Ecosystems	Covers the role of genes in regulating and controlling cell function and development. Heredity and the mechanisms of evolution and speciation are also covered. The use of microorganisms in biotechnology is also covered. Both of these have associated ethical considerations and it is important that learners develop a balanced understanding of such issues. Learners gain an appreciation of the role of microorganisms in recycling materials within the environment and maintaining balance within ecosystems. The need to conserve environmental resources in a sustainable fashion is considered, whilst appreciating the potential conflict arising from the needs of an increasing human population. .Organisms do not live in isolation but engage in complex interactions, not just with other organisms but also with their environment	In-class informal assessments - topic based questions and past exam questions End of topic test March mock exams	zoologist geneticist research botanist conservation
5	revision	past questions / exam skills targeted revision		
6	exams			