

Year 9 Biology

We begin teaching the GCSE biology course which builds on knowledge and understanding of science from Years 7 and 8. B1 builds on the Key Stage 3 topic 'organisms' by deepening understanding of cell structure, specialisation and transport. It also builds on aspects of the Key Stage 3 topic 'genes' developing more detail on cell division. B2 also builds on the Key Stage 3 'organisms' topic by developing a more complex understanding of organ systems. It goes further in developing knowledge of lifestyle diseases such as heart disease and cancer. B3 begins the work on communicable diseases, building on the Key Stage 3 'organisms' topic again to develop a broader knowledge of micro-organisms and the diseases they can cause. Investigative skills are developed through a number of required practical activities. There are also other practical activities that enrich learning, as well as practical demonstrations that do the same.

Methods of deepening and securing knowledge:

Retrieval practice	Almost all lessons have retrieval practice in them. This is usually as a starter activity.
Interleaving	Retrieval practice includes interleaved questions from previous topics, making connections between topics where possible. Many ideas from Key Stage 3 are revisited during Year 9 lessons.

	Autumn term 1	Autumn term 2	Spring term 1	Spring term 2	Summer term 1	Summer term 2
Topic(s)	B1 - Microscopy - Eukaryotes and prokaryotes - Animal and plant cells - Cell specialisation - Cell differentiation - Culturing microorganisms - Chromosomes - Mitosis and the cell cycle - Stem cells - Diffusion - Osmosis - Active transport		B2 - The human digestive system - Catalysts and enzymes - The heart and blood vessels - Blood - Coronary heart disease - Cancer - Plant tissues - Plant organ systems		B3 part 1 - Communicable diseases - Growing bacteria in a lab - Extended investigation project	
Assessment	- Aiming High 1 test covering B1 lessons taught up to that point					- PPE covering all topics taught up to that point in Year 9

Homework:

Homework is a core part of learning and serves to support the learning in class, enrich the student experience and develop knowledge and skills. There are two types of homework set in Biology e.g. Educake revision (an online platform that support retrieval of knowledge) and past paper questions that develop exam literacy. Preparing for assessment is an essential part of each topic as each assessment allows teachers and students to see their progress. It is crucial that revision is completed so students can show what they know.