



Year 9 Biology curriculum overview for 2024 – 2025 (New for 2024)

	Key content (knowledge)	Key skills	Assessments	Challenge and enrichment
Autumn half term 1	Cell structure Cell transport mechanisms	Microscopy Required practical 1 Changing units for calculations Required practical 3 Osmosis		Determining the function of an unknown type of cell based on observable features.
Autumn half term 2	How pathogens can cause disease and how their spread can be controlled. Aseptic technique for growing bacteria. The immune response. Plant diseases and their defences.	Required practical 2 – Aseptic technique and effect of antiseptics on bacterial growth.	Test 1 – Microscopes and cells, and cell transport.	Researching uses of plants in medicine. Starting with Wider reading – Biological Sciences review article “Plants versus pests”.

Spring half term 1	Vaccination Drug development Making and using monoclonal antibodies.	Application of knowledge to contexts. Understanding validity in scientific investigation and the importance of peer review in scientific reports.	Test 2 – Communicable disease and immune response and vaccination.	Microbiology in Schools Advisory Committee (MiSAC) annual poster competition.
Spring half term 2	Non – communicable disease. Uses of monoclonal antibodies to treat cancer.	Understanding the difference between correlation and causation. Data analysis from graphs and several data sets to be used together.		Wider reading – Biological Sciences review article “Putting antibodies to work”.
Summer half term 1	The cell cycle, differentiation of cells and stem cells.	Cauliflower cloning method. Evaluating the ethical considerations of using stem cells.	Test 3 – Data analysis for non-communicable disease, plus uses of monoclonal antibodies and drug development.	UKBC: Biology Challenge competition. Cauliflower cloning task.
Summer half term 2	Tissues, organs and organ systems. The human digestive system.	Applied maths and reading data from graphs.	End of year 9 exam.	<ul style="list-style-type: none"> • Newstead Science Expo competition. • Royal Society of Biology Nancy Rothwell Prize biological drawing competition.