

KS3 YEAR 9 Biology Curriculum

Curriculum Intent: We seek through an ambitious and engaging curriculum to develop a sense of curiosity to wonder why and how things work, and to provide skills and knowledge to find the answer. The curriculum is spiralsised to introduce and build on key scientific concepts to help students understand complex ideas enriched by opportunities outside the classroom.

Building on Variation Inheritance and the Genome (Year 7), we explore the interactions between organisms within ecosystems and the effects of human activity on biodiversity. Key topics include:

- **Communities and ecosystems** – how organisms interact within their environments.
- **Food chains and food webs** – understanding energy transfer and ecological balance.
- **Biodiversity** – its significance and the consequences of human impact.

Cell Biology *this unit delves deeper into cell biology, enhancing understanding of:*

- **Cell structure and function** – exploring cells in greater detail.
- **Cell development and specialisation** – how cells differentiate to perform specific roles.
- **Transport mechanisms** – how substances move in and out of cells.

infections and the Body's Response *This unit connects the concepts of health and disease with real-world examples. It requires knowledge from all KS3 biology topics. Key areas include:*

- **Types of diseases** – bacterial, viral, and other infections.
- **Body defenses** – how the immune system fights disease.
- **Health and prevention** – strategies to reduce the spread of diseases

	Autumn Term	Spring Term	Summer Term
Main Topic	Interdependence and Survival	Cell Biology	Infection and Response
Key Concepts	Organisms have complex relationships requiring variation and biodiversity and leads to evolution by natural selection	Structure and Function of Eukaryotic and Prokaryotic Cells.	
Cross-curricular links	Geography – Food Chains Life Curriculum – Diversity	History – Medicine Through time Life Curriculum – Health and Disease Life – Environment	LIFE – Health & Disease. Relationships & sexually transmitted diseases. History – Hygiene Maths - percentages
Interleaving of skills	Interpreting data and graphs – spotting trends in data. n	Writing a prediction, selecting equipment, suggesting improvements, outlining variables, calculating rates	Interpreting data & graphs
Literacy	Tier 3 Biodiversity Tier 2 Evolution Selection	Tier 3 Gamete Bacteria Eukaryotic Ribosome Tier 2 Magnify Resolution	Tier 3: Communicable, Prokaryote, Pathogen, Vaccine, Immune System, Names of diseases, Toxicity, Dosage, Efficacy. Tier 2: Transmission, Effects, Symptom, Treatments, Cures, Defences

Cultural capital	The importance of maintaining biodiversity to survival of species. The celebration of variation and the understanding that humans are closely related.	Impact of plants on the environment. Links to health & health service via respiration	Effect on health system Healthy relationships & sexual health. Drug dependency Famous scientists & history of science
Careers	Ecologist, agri-business	Microscope operator Health Care Professional Endochronologist.	Health Care Professional Epidemiologist
Assessment	SB9 CKT	SB10 KMP	SB11 CKT