

BIOLOGY 5 Year curriculum Overview



Broader concepts:	
Cells and Transport Plant and Animal Systems	Bioenergetics Disease and Immunity
Skills:	Knowledge:
Choose correct answers Complete diagrams and descriptions Write / Give short answers using key words Measure volumes, masses and temperatures Name processes and organs Sketch accurate diagrams	Cell structure, diffusion and osmosis Principles of organisation including the human digestive system, heart and blood vessels and plant tissues. Viral and bacterial diseases human immunity, plant diseases. Photosynthesis and respiration.
Recall:	
From Y6 Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function Describe the ways in which nutrients and water are transported within animals, including humans	

Broader concepts:	
Cell structure, principles of organisation, communicable diseases, respiration, transport in cells, plant tissues and plant diseases.	
Skills:	Knowledge:
Carry out multistep calculations, that can include converting units of measurement Predicting the outcomes of investigations using Biological knowledge. Planning methods. Plotting scatter graphs and drawing lines of best fit.	This year will identify the links between cell structure and whole organism organisation and functioning. The aspects of human biology will focus on digestion and circulation, the plant biology will focus on the transport of water and sugars.
Recall:	
This year will build on the skills and content covered in Y7 and Y8. Notably; Cell structure, diffusion and osmosis Principles of organisation including the human digestive system, heart and blood vessels and plant tissues. Viral and bacterial diseases human immunity, plant diseases. Photosynthesis and respiration.	

Broader concepts:	
Ecology	
Skills:	Knowledge:
Clearly show how you have carried out multistep calculations. Evaluate experiments and processes Produce detailed explanations of processes Produce detailed descriptions of data. Comparing processes, structures and data Suggest how core biological content links to new and unfamiliar situations.	Communities, adaptations, cycling of nutrients, biomass, food production, global warming.
Recall:	
This year will build on the skills and content covered in Y7, Y8, Y9 and Y10. Notably; Biodiversity, food chains and surveying the environment The second half of the year will be spent bringing together and forming links between all of the skills and content covered from Y7-Y11	

Broader concepts:	
Reproduction and Variation Ecology	Homeostasis and Control
Skills:	Knowledge:
Calculating mean averages and percentages. Describing biological processes. Accurately defining key biological terms. Plotting scatter graphs and bar charts.	Genetics, variation, genetic disorders, classification and evolution. Hormones and the nervous system. Germination. Biodiversity, food chains and surveying the environment
Recall:	
This year will build on the skills covered in Y7 and content from Y6: Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals give reasons for classifying plants and animals based on specific characteristics.	

Broader concepts:	
Bioenergetics Homeostasis and the nervous system Reproduction and variation	
Skills:	Knowledge:
Use data from graphs and tables to carry out multistep calculations Evaluate experiments and processes Produce detailed explanations of processes Produce detailed descriptions of data. Comparing processes, structures and data	Factors that impact on the rates of respiration, photosynthesis and metabolism. Structures, functions and adaptations of the human endocrine and nervous systems. Hormones in plants. DNA and the genome, genetic technology, mutations, evolution and classification.
Recall:	
This year will build on the skills and content covered in Y7, Y8 and Y9. Notably; Genetics, variation, genetic disorders, classification and evolution. Hormones and the nervous system. Germination.	

