

KS4 Curriculum Overview (GCSE BIOLOGY)

YEAR 11

Year 2 GCSE/BTEC Option Subjects

TERM 1 TOPIC/s	*Key Skills/Subject Links	*Career links & BV
Ecology: B16 Adaptations, interdependence, and competition (continued) Genetics and reproduction: B14 Variation and evolution	Evaluate the benefits and problems associated with genetic engineering and selective breeding in agriculture and medicine. Psychology Link – Nature and nurture.	Career Links Botanist, Biomedical engineer, Journalist, forest warden. British values Individual Liberty: Ethics of Genetically Modified (GM) food and genetic engineering. Mutual respect and Tolerance: Opportunity to discuss ethics of selective breeding and adult cloning.
TERM 2 TOPIC/s	*Key Skills/Subject Links	*Career links & BV
Genetics and reproduction: B15 Genetics and evolution	The binomial naming system and writing scientific names. Analysis of fossil records.	Career Links Geologist, botanist, paleontologist, laboratory assistant, conservationist. British values Mutual respect and Tolerance: Opportunity to discuss Darwin's theory of evolution by natural selection and conflicts with religious beliefs. Mutual respect and Tolerance: Students learn about the continual evolution of scientific ideas which occurs through the acceptance that different people have different ideas about a concept, e.g., evolution and the ideas of Lamarck, Darwin and Wallace.
TERM 3 TOPIC/s	*Key Skills/Subject Links	*Career links & BV
Ecology: B17 Organising an ecosystems B18 Biodiversity and ecosystems	Data analysis, interpreting population graphs, labelling carbon cycle processes. Practical skills: Investigating the rate of decay of milk.	Career Links Biologist, Arboricultural officer, Countryside officer, Environmental consultant, Horticultural manager Journalist, forest warden. Water treatment specialist, recycling operative. British values Individual Liberty:

	Geography Link – Carbon cycle, global warming, biodiversity. Chemistry Link – pH.	There are opportunities for students to work independently and make choices in a safe environment when carrying out investigations. Persuading gardeners to use peat-free compost. Opportunities to discuss breeding programmes for endangered species, recycling resources. The Rule of Law: Maintaining biodiversity, managing waste and pollution, fishing regulations.
TERM 4 TOPIC/s	▪ *Key Skills/Subject Links	*Career links & BV
GCSE Course completed: Revision programme: Paper 1 and Paper 2.	N/A	N/A
TERM 5 TOPIC/s	▪ *Key Skills/Subject Links	*Career links & BV
GCSE Course completed: Bespoke revision timetable	N/A	N/A
TERM 6 TOPIC/s	▪ *Key Skills/Subject Links	*Career links & BV
GCSE Course completed: Bespoke revision timetable	N/A	N/A