

AUTUMN 1

Ecology

Ecosystems, communities, biotechnology, sustainability.

Prior Learning
Students have studied basic plants in year 7 and interdependence including carbon cycle, food chains in year 8.

AUTUMN 2

Homeostasis and response

Homeostasis, nervous system, structure, and function of CNS.

Prior Learning
Students have studied nerve cells as specialised cells and an overview of the nervous system in year 7 and studied reproduction with a brief overview of the menstrual cycle and IVF.

SPRING 1

Inheritance, variation and Evolution

Sexual and asexual reproduction, Meiosis, classification of living organisms.

Prior Learning
Students have studied basic inheritance and evolution during year 8. Variation is briefly studied during reproduction in year 7, (continued from year 10).

SPRING 2

Revision of topics 5,6,7

Meiosis, reproduction, ecology, nervous system, homeostasis.

Prior Learning
Pupils will have been exposed to content in year 9, 10 and year 11.

SUMMER 1

Revision of topics 1,2,3,4

Respiration, photosynthesis, plant defences, diseases, cells, transport, digestion.

Prior Learning
Pupils will have been exposed to content in year 9, 10 and year 11.

CAREERS LINKS

Zoologists, palaeontologist, ecologist, pharmacist, biomedical student, research scientist, teacher, laboratory technician, nutritionist, dietician, evolutionary biologist, geneticist, comparative animal biologist, botanist, environmental biologist, conservationist.

CHARACTER LINKS

Motivation, resilience, and teamwork (performance virtues).
Critical thinking and problem solving (intellectual virtues).
Consideration and construction of moral and ethical arguments in science (moral virtues).

KEY ASSESSMENT DATES

End of topic tests are completed in addition to exam assessments in Oct, Dec and April according to the KS4 assessment calendar.