

**KEY**  Organism  Ecosystems  Genes

**YR9**

**Y9 SUMMER TERM UNIT 1**



### Cell structure

What is the difference between eukaryotic and prokaryotic cells?  
How do light and electron microscopes differ?

**Y9 SUMMER TERM UNIT 2**



### What happens in cells?

What factors affect the ability of an enzyme to work?  
How does the process of DNA replication happen?

**Y9 SUMMER TERM UNIT 3**



### Respiration

What is the difference between aerobic and anaerobic respiration?  
How is anaerobic respiration useful in microorganisms?

**Y9 SUMMER TERM UNIT 4**



### Photosynthesis

What factors affect the rate of transpiration?  
How do limiting factors affect the rate of photosynthesis?

**YR10**

**Y10 UNIT 1**



### Supplying the cell

What is the difference between osmosis and diffusion?  
Why is the use of stem cells seen as controversial?

**Y10 UNIT 2**



### The challenges of size

What are the different blood vessels and how are they different?  
How do factors like wind and temperature affect transpiration?

**Y10 UNIT 5**



### Maintaining internal environments

What is the difference between type 1 and type 2 diabetes?  
How is body temperature controlled in humans?

**Y10 UNIT 4**



### The endocrine system

What hormones are present in the menstrual cycle?  
How are hormones used to treat infertility?

**Y10 UNIT 3**



### The nervous system

What do the different neurons in the nervous system do?  
How does damage affect the nervous system?

**Y10 UNIT 6**



### Ecosystems

What is the difference between biotic and abiotic factors?  
How do some organisms affect the population size of others?

**Y10 UNIT 7**



### Inheritance

What are the main differences between sexual and asexual reproduction?  
How does a genetic cross show likelihood to have a particular trait?

**YR11**

**Y11 UNIT 1**



### Natural selection and evolution

What is evolution by natural selection?  
What is the evidence for evolution?

**Y11 UNIT 2**



### Monitoring the environment

What sampling techniques are there and how are they used?  
How is biodiversity being reduced and what are we doing to help?

**Y11 UNIT 3**



### Feeding the human race

What is genetic engineering?  
How is farming affected by genetic engineering?

**Y11 UNIT 4**



### Monitoring health

What types of organisms cause diseases in plants and animals?  
How do certain factors affect the development of non-communicable diseases?