



## Year 11 Biology Learning Map



- TERM 1 -

### The Nervous System

This unit introduces the structure and function of the nervous system and explores how we respond to changes in our environment using electrical signals.

### Hormones

This unit introduces you to hormones and the endocrine system - understanding the principles of hormonal control in metabolic rate, the menstrual cycle, blood glucose and diabetes.

### Reproduction

This unit builds on the work done in year 7 about human reproduction and links the previous topic, to understand the role of hormones in the menstrual cycle and fertility.



#### LINKS TO PRIOR LEARNING

Previously at KS3 pupils will have learnt:

- How cells, tissues, organs and organ systems are related.
- That cells divide.
- That your nervous system helps to coordinate your actions.



- TERM 2 -

### Variation and Evolution

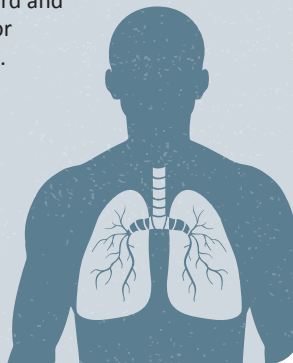
This topic builds on the work done in KS3 on variation and explores DNA in more detail. In particular, developing an understanding of cell division and inheritance.

### Organisms and their Environment

In this topic we will look at what impacts the delicate balance within an ecosystem, focussing on the interactions between organisms, and the non-living parts of the environment.

### Evolution and Extinction

In this topic we analyse the evidence for evolution, including the fossil record and reasons for extinction.



#### LINKS TO PRIOR LEARNING

Previously students will have learnt:

- That organisms change over time (evolution).
- That Charles Darwin came up with a theory to explain this.
- About how DNA contains instructions for the characteristics of organisms.



- TERM 3 -

### Genetic Technology

This unit explores two genetic technologies; selective breeding and genetic engineering, and considers the ethics of using these techniques.



#### LINKS TO PRIOR LEARNING

Previously students will have learnt:

- That organisms change over time (evolution).
- About how DNA contains instructions for the characteristics of organisms.

