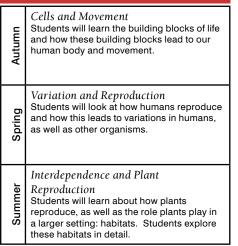
# **The Samworth Church Academy**

Curriculum Journey: Biology

### Year 7



### Year 8

Digestion & Breathing Students looking at the role of systems in Autumn the body, including gas exchange and the digestive system. Respiration & Photosynthesis Students will explain these chemical Spring processes and the roles they play in organisms. Evolution and Inheritance Students will explain how characteristics Summe are passed from parents to offspring and the role of DNA.

### Year 9

Autumn	Cells and Transport Students will look at cell structure in detail, along with how substances move in and out of cells.
Spring	Disease Students will look at how diseases can be transmitted, as well as types of diseases and how the body defends itself.
Summer	<i>Ecology</i> Students look at how an ecosystems are organised, how materials cycle through an ecosystem, and how to monitor the health of an ecosystem.

	Year 10
Autumn	Organisation and Digestive System Students will explore the parts of the digestive system, the role of food molecules, and the role enzymes play in our body.
Spring	Organisation and Digestive System Continued from previous term.
Summer	Energetics Students will look at how respiration and photosynthesis link to the organisation of plants and animals.

#### Year 11 Homeostasis Students look at how our bodies maintain the internal conditions, including our nervous system, endocrine system, and reproductive system. Genetics Students will explain the mechanism of

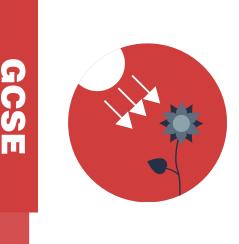
- inheritance and explain how this links to
- Spring variation and evolution.

#### Examination

Autumn

A Leve

Students will test their knowledge of their Summer five years in their exams.





Year 12		
Autumn	Biological molecules & immune response Learning the biological molecules, those that make up everything, we then look at a cell in more detail. We then use this knowledge to learn about enzyme	
Spring	Cell transport and exchange, and DNA and mass transport Looking in detail how cells exchange substance in both plants and animals.	
Summer	Biodiversity Students will explore the number of species and organisms and the variation of characteristics, including calculations to support this.	

Year	13
To be confirmed	

To be confirmed

Autumn

Spring

Summer

To be confirmed

#### Biology

Autumn	Spring	Summer
<b>Cells and movement</b>	Variation and Reproduction	Interdependence and plant reproduction
Students will learn the building blocks of life and how	Students will look at how humans reproduce and how	Students will learn about how plants reproduce, as
these building blocks lead to our human body and	this leads to variations in humans, as well as other	well as the role plants play in a larger setting: habitats.
movement.	organisms.	Students explore these habitats in detail.

#### Biology

Autumn	Spring	Summer
Digestion & breathing	Respiration and photosynthesis	Evolution and inheritance
Students looking at the role of systems in the body,	Students will explain these chemical processes and	Students will explain how characteristics are passed
including gas exchange and the digestive system.	the roles they play in organisms.	from parents to offspring and the role of DNA.

#### Biology

Autumn	Spring	Summer
<b>Cells and transport</b> Students will look at cell structure in detail, along with how substances move in and out of cells.	as well as types of diseases and how the body defends	Ecology Students look at how an ecosystems are organised, how materials cycle through an ecosystem, and how to monitor the health of an ecosystem.

#### Biology

Autumn	Spring	Summer
Organisation and digestive system	Organisation and digestive system (continued)	Energetics
Students will explore the parts of the digestive system,	Students will explore the parts of the digestive system,	Students will look at how respiration and
the role of food molecules, and the role enzymes play	the role of food molecules, and the role enzymes play	photosynthesis link to the organisation of plants and
in our body.	in our body.	animals.

#### Biology

Autumn	Spring	Summer
Homeostasis Students look at how our bodies maintain the internal conditions, including our nervous system, endocrine system, and reproductive system.	<b>Genetics</b> Students will explain the mechanism of inheritance and explain how this links to variation and evolution. Genetics - students will explain the mechanism of inheritance and explain how this links to variation and evolution.	Students will test their knowledge of their five years in their exams.

#### Biology

Autumn	Spring	Summer
Learning the biological molecules, those that make up everything, we then look at a cell in more detail.	Cell transport and exchange, and DNA and mass transport Looking in detail how cells exchange substance in both plants and animals.	<b>Biodiversity</b> Students will explore the number of species and organisms and the variation of characteristics, including calculations to support this.