

**Year9 BIOLOGY**

<b>Autumn 1</b> <b>(September – October)</b>  <b>to</b> <b>Autumn 2</b>  <b>(October – December)</b>	<p>Inheritance and evolution</p> <p>This topic encourages students to see how biology is related to them through the study of variation in their class and humans' part to play in preserving biodiversity. It builds on middle school learning about basic cell structure, specifically the role of DNA. Later in the topic we study evolution to introduce a topic that will be developed in key stage 4.</p>
<b>Spring 1</b> <b>(January – February)</b>  <b>to</b>  <b>Spring 2</b>  <b>(February – March)</b>	<p>Animal anatomy</p> <p>This topic builds on key stage 2 study of the heart and blood vessels and key stage 3 study of digestion and gas exchange. It includes many key biological terms and structures within the human body and provides a grounding for the study of human biology.</p>
<b>Summer 1</b> <b>(April – June)</b>  <b>to</b> <b>Summer 2</b> <b>(June – July)</b>	<p>Plant anatomy</p> <p>This topic builds on key stage 3 study of photosynthesis. It introduces the idea of organs in plants and provides the basis for the further study of plant biology. It is placed after animal anatomy to allow comparisons to be made and students to use their prior learning to support this more unfamiliar context.</p>

**Year 9 CHEMISTRY**

<b>Autumn 1 (September – October) to Autumn 2 (October – December)</b>	<b>Chemical reactions</b>  This topic includes lots of practical opportunities and so supports the development of practical skills in a lab. It builds on many areas of study from middle school including the pH scale, the test for hydrogen, word equations and provides opportunity to build on prior learning throughout.
<b>Spring 1  (January – February) to Spring 2 (February – March)</b>	<b>Metals and reactivity</b>  This topic introduces key concepts in chemistry such as conservation of mass in chemical reactions and the relative reactivity of elements. It builds on topic 1 with further opportunity for word and symbol equations.
<b>Summer 1  (April – June) to Summer 2 (June – July)</b>	<b>Energy in chemical reactions</b>  This lesson links with the first key stage 4 Chemistry topic as it covers particle theory and energy changes in reactions. This content underpins the key stage 4 topic of changes of state and energy in reactions.

### Year 9 Physics

**Autumn 1 (September – October)  
to  
Autumn 2 (October – December)**

#### **Space**

This topic provides an opportunity for all students to study our solar system and the universe. It develops their appreciation of the scale of physics and how it affects their lives. It provides a range of skills development opportunities such as graph practice and simple calculations and students will undertake a small research project.

**Spring 1 (January – February)  
to  
Spring 2 (February – March)  
&  
Summer 1 (April – June) to  
Summer 2 (June – July)**

#### **Energy**

This topic covers one of the most fundamental ideas in physics and provides students the opportunity to recap energy transfers such as electric current, forces and heat from previous KS3 content. It will provide an understanding of energy as the basis of all physics and how it links to each topic at key stage 4.