

Year 6	Autumn Term
First half term	<p><b><u>Investigations</u></b></p> <p>Students will re cap and build on their knowledge of lab safety, hazard, symbols, equipment and diagrams, from year 5</p> <p>They will re cap independent, dependent and control variables.</p> <p>They will look at errors and anomalies.</p> <p>The will collect and record data, presenting it in different ways, and drawing conclusions from it.</p> <p>There will be a focus on dissolving and reversible and irreversible changes.</p> <p>The students will plan and carry out their own investigations to answer questions using various scientific equipment.</p>
Second half term	<p><b><u>Classification</u></b></p> <p>Students will learn to describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals</p> <p>They will give reasons for classifying plants and animals based on specific characteristics.</p> <p>Students will learn about Carl Linnaeus and his work creating the Linnaean classification system.</p> <p>Through direct observations where possible, they will classify animals into commonly found invertebrates and vertebrates (fish, amphibians, reptiles, birds and mammals). They will discuss reasons why living things are placed in one group and not another.</p>

Year 6	Spring Term
First half term	<p><b><u>Evolution</u></b></p> <p>Pupils will be taught to recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago</p> <p>To recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents</p> <p>To identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.</p> <p>The students will learn about the work of Mary Anning and Charles Darwin.</p>
Second half term	<p><b><u>Electricity</u></b></p> <p>Pupils will be taught to associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit</p> <p>To compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches</p> <p>To use recognised symbols when representing a simple circuit in a diagram.</p> <p>Students will construct simple series circuits, to help them to answer questions about what happens when they try different components, for example, switches, bulbs, buzzers and motors. They should learn how to represent a simple circuit in a diagram using recognised symbols.</p>

Year 6	Summer Term
First half term	<p><b><u>Light</u></b></p> <p>Pupils will be taught to recognise that light appears to travel in straight lines</p> <p>To use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye</p> <p>To explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes</p> <p>To use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.</p> <p>The students will use ray boxes to investigate light, reflection and refraction.</p> <p>They will learn about Isaac Newton's discoveries about the visible spectrum, they will repeat his experiment with a prism, and make a Newton's disc .</p>
Second half term	<p><b><u>Circulatory system</u></b></p> <p>Students will be taught to identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood</p> <p>To recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function</p> <p>To describe the ways in which nutrients and water are transported within animals, including humans.</p> <p>Students will observe a heart dissection, make a model of blood, and investigate the effects of exercise on their pulse rate.</p>