

Science Progression

Science

Year 6	
Autumn 1	Autumn 2
<p style="text-align: center;">Animals (including Humans)- Blood and transportation</p> <ul style="list-style-type: none"> • <i>Identify and name the main parts of the human circulatory system and describe the functions of the heart, blood vessels and blood</i> • <i>Describe the ways in which nutrients and water are transported within animals, including humans</i> • <i>Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function</i> <p>Lesson 1: Describe the composition of blood Lesson 2: Describe how oxygen is moved around the body Lesson 3: Explain how blood is filtered Lesson 4: Describe what a blood transfusion involves Lesson 5- Describe how diabetes is managed Lesson 6: Describe the roles of bacteria</p>	<p style="text-align: center;">Light</p> <ul style="list-style-type: none"> • <i>Recognise that light appears to travel in straight lines</i> • <i>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</i> • <i>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</i> • <i>Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them</i> <p>Lesson 1: Explain how light travels in a straight line and shadows are formed Lesson 2: Compare materials of different transparencies Lesson 3- Describe how lenses can be used Lesson 4- Explain how water can bend light Lesson 5- Explain that white light is a spectrum of colours and know that we can use a prism to refract light Lesson 6- Investigate light colour mixing</p>

Year 6	
Spring 1	Spring 2
<p style="text-align: center;">Evolution & Inheritance</p> <ul style="list-style-type: none"> • <i>Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago .</i> • <i>Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents</i> • <i>Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution</i> <p>Lesson 1: Explain how adaptations help animals and plants survive</p> <p>Lesson 2: Describe the process of natural selection</p> <p>Lesson 3: Explain what fossils can tell us</p> <p>Lesson 4: Explain why animals can look different to their parents</p> <p>Lesson 5- Explore the life and work of palaeontologist Mary Anning</p> <p>Lesson 6: Describe the process of genetic modification</p>	<p style="text-align: center;">Living Things & Their Habitats</p> <ul style="list-style-type: none"> • <i>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</i> • <i>Give reasons for classifying plants and animals based on specific characteristics.</i> <p>Lesson 1: Understand that living organisms are classified into groups called kingdoms</p> <p>Lesson 2: Explore and differentiate between the kingdoms of life</p> <p>Lesson 3- To understand how living things are classified into different groups and to describe the work of Carl Linnaeus</p> <p>Lesson 4- To describe different types of fungi</p> <p>Lesson 5- Identify different classes of vertebrates</p> <p>Lesson 6- Explore soil habitats</p>

Year 6	
Summer 1	Summer 2
<p style="text-align: center;">Electricity</p> <ul style="list-style-type: none"> • Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit • 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 • Use recognised symbols when representing a simple circuit in a diagram. <p>Lesson 1: Understand that electricity involves a charge of electrons and understand static electricity</p> <p>Lesson 2: Describe the parts of an electric circuit</p> <p>Lesson 3: Explain what affects the output of a circuit</p> <p>Lesson 4: Explain how variable resistors can work like a switch</p> <p>Lesson 5- Compare electrical conductors and insulators and explain how to use electricity safely</p> <p>Lesson 6: Design and make a set of traffic lights or some other useful circuit</p>	<p style="text-align: center;">Animals (Including Humans)- Heart and Health</p> <ul style="list-style-type: none"> • Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function PSHE/RSE • Describe the ways in which nutrients and water are transported within animals, including humans <p>Lesson 1: Describe how nutrients and water are transported within animals</p> <p>Lesson 2: Explore the work of William Harvey to understand that fatty deposits can clog blood vessels and cause a heart attack</p> <p>Lesson 3- Describe the four chambers of the heart and explain how the heart moves blood around the body</p> <p>Lesson 4- To describe what affects the heart rate – blood pressure and pulse</p> <p>Lesson 5- Explore the different food groups and identify ways to eat a balanced diet</p> <p>Lesson 6- Describe the consequences of an unhealthy lifestyle</p>