

Science Progression – National Curriculum

Year 3

<p>Plants and Animal Animals (including human) need the right types and amount of nutrition and that they cannot make their own food. Identify and describe the functions of different parts of flowering plants. Investigate the way in which water is transported within plants. Humans and some other animals have skeletons and muscles for support, protection and movement.</p>	<p>Forces and Magnets Compare how things move on different surfaces. Some forces need contact whereas magnetic forces can act at a distance. Magnets attract and repel. Sort materials according to whether or not they attract to a magnet. Magnets have two poles.</p>	<p>Light Recognise that light is needed in order to see things. Darkness is the absence of light. Light reflects from the sun and can be dangerous. There are ways in which human eyes can be protected from damage by the sun. Shadows are formed when the light from a light source is blocked by an opaque object.</p>	<p>Rocks and Soils Compare and group together different kinds of rocks based on their appearance and simple physical properties. Describe how fossils are formed when things that have lived are trapped within a rock. Soils are made from rocks and organic matter.</p>	<p>Working Scientifically:</p>	
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2

Year 4

<p>Working Scientifically:</p>	<p>Electricity Identify common appliance that run on electricity. Construct a simple circuit. Identify whether or not a lamp will light in a circuit. Recognise a switch opens and closes a circuit. Recognise some common conductor.</p>	<p>Animals and Humans - Habitats Animals can be grouped based on their features. Living things can be divided into kingdoms. A species is a group of living things with similarities. Classification keys can be used to sort and identify living things. Climate change affects living things.</p>	<p>Animals including humans Describe the functions of the digestive system in humans. There are different types of teeth and they each have a different function. Make and interpret a variety of food chains – predators, producers and prey.</p>	<p>Sound Sounds are made when something is vibrating. Vibrations from the sounds travel through the medium to the ear. There are patterns between the pitch of the sound and the object that makes it. Sounds get fainter as the distance from the sound source increases.</p>	<p>States of Matter Compare and group materials – solids, liquids and gases. When materials are heated or cooled, materials can change state. Evaporation and condensation are part of the water cycle. These are associated with temperature.</p>
Summer 2	Summer 1	Spring 2	Spring 1	Autumn 2	Autumn 1

Year 5

<p>Earth and Space Describe the movements of the Earth and other planets relative to the sun in the solar system. Describe the movement of the moon. The sun, Earth and moon are approximately spherical. Explain night and day.</p>	<p>Forces Unsupported objects fall to the floor because of the force of gravity acting between the Earth and the falling object. Identify the effects of air resistance and friction – these act between moving surfaces. Some mechanisms, including levers, pulleys and gears allow a smaller force to have a greater effect.</p>	<p>Properties and Changes of Materials Compare and group everyday materials on the basis of their properties. Some materials will dissolve in liquid to form a solution. Describe how to recover a substance from a solution. Know how to separate solids liquids and gases.</p>	<p>Properties and Changes of Materials cont'd... <ul style="list-style-type: none"> Separation to include filtering, sieving and evaporating. Demonstrate that dissolving, mixing are reversible. Some changes result in the formation of new materials – these are not reversible. </p>	<p>Living Things in Their Habitats Describe the changes as humans develop to old age. Describe the differences between the life cycle of a mammal, an amphibian, an insect and a bird. Describe the life processes of reproduction in some plants and animals.</p>	
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2

Year 6

<p>Evolution and Adaptation Living things have changed over time. Fossils provide information about living things that inhabited the Earth millions of years ago. Living things can produce offspring of the same kind but normally offspring vary and are not identical to their parents. Animals and plants are adapted to suit their environment in different ways and adaptation can lead to evolution.</p>	<p>Light Light appears to travel in straight lines. Objects are seen because they give out or reflect light into the eye. We see things because light travels from light sources to our eyes or from light sources to the object and then to our eyes. Shadows have the same shape as the objects that casts them.</p>	<p>Electricity 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>	<p>Living Things & Their Habitats Living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals. Give reasons for classifying plants and animals based on specific characteristics.</p>	<p>Animals and Humans Identify the main parts of the circulatory system and describe the functions of the heart, lungs and blood vessels. Recognise the impact of diet, drugs, exercise and lifestyle on the way human bodies function. Know the ways that nutrients and are transported within animals, humans.</p>	
Summer 2	Summer 1	Spring 2	Spring 1	Autumn 2	Autumn 1