

## Science – Progression and Skills Overview

KS 1 including direct reference to national curriculum aims	Plants	Animals including Humans	Living things and their habitats	Evolution and Inheritance	Materials/ States of Matter	Rocks	Light/ Sound	Forces	Seasonal Change	Electricity	Earth and space
<b>YEAR 1</b>	<p>Identify and name a range of local plants and trees</p> <p>Name parts of a range of familiar plants</p> <p>Identify and describe the basic structure of a variety of common plants</p>	<p>Identify and name a variety of common animals</p> <p>Identify and name a variety of common animals that are carnivores, herbivores and omnivores</p> <p>Describe and compare the structure of a variety of common animals</p> <p>Identify, name, label basic parts of human body and link to senses</p>	N/A	N/A	<p>Distinguish between an object and the material from which it is made</p> <p>Identify and name range of materials</p> <p>Describe simple properties of variety of every-day materials</p> <p>Classify variety of materials into groups based on physical properties</p>	N/A	N/A	N/A	<p>Describe seasonal change across the four seasons</p> <p>Relate weather patterns and day length to the seasons</p>	N/A	N/A
<b>YEAR 2</b>	<p>Observe and describe how seeds and bulbs grow into mature plants</p> <p>Find out and describe how plants need water, light and a suitable temp to grow and stay healthy</p>	<p>Notice that animals, including humans, have offspring which grow into adults</p> <p>Describe the basic needs of animals, including humans for survival</p> <p>Describe the importance of a healthy diet, exercise and hygiene</p>	<p>Explore and compare the differences between things that are living, dead and things that have never been alive</p> <p>Explain how, for a named animal or plant, it gets what it needs from its habitat and other living things that are there</p> <p>Identify a variety of plants and animals in their habitats</p> <p>Construct a simple food chain and identify what is eating what</p>	N/A	<p>Identify and compare suitability of variety of everyday materials for particular uses</p> <p>Find out that the shapes of objects can be changed by squashing, bending, twisting and stretching</p>	N/A	N/A	N/A	N/A	N/A	N/A

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<b>YEAR 3</b>	<p>Identify and describe the functions of different parts of a flower plant, root, stem, trunk, leaves and flower</p> <p>Explore the requirements for plants for life and growth and how they vary plant to plant</p> <p>Explain, how water is transported in plants</p> <p>Explore the parts that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal</p>	<p>Describe why animals depend on the correct nutrition</p> <p>Identify that humans and some animals have skeletons and muscles for support, protection and movement</p>	N/A	N/A	N/A	<p>Explain how fossils are formed</p> <p>Describe how soil is made</p> <p>Compare and group rocks on basis of appearance and simple physical properties</p>	<p>Relate being able to see to presence of light and darkness to absence of light</p> <p>Notice that light is reflected from some surfaces</p> <p>Describe how and why our eyes should be protected from light from the sun</p> <p>Explain how shadows are made</p> <p>Describe how to change the size of a shadow</p>	<p>Compare how an object moves on different surfaces</p> <p>Notice some forces need contact between two objects , but magnetic forces act at distance</p> <p>Observe how magnets attract and repel each other and attract some materials and not others</p> <p>Compare and group materials on basis of testing for being magnetic</p> <p>Describe magnet as having two poles Predict if two magnets will attract or repel , depending on poles</p>	N/A	N/A	N/A

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<b>YEAR 4</b>	<b>N/A</b>	<p>Describe the simple functions of the basic parts of the digestive system in humans</p> <p>Identify the Different types of teeth in humans and their simple functions</p> <p>Construct and explain a variety of food chains, identifying producer, predator and prey</p>	<p>Suggest different ways of sorting the same groups of living things-recognising they can be grouped in variety of ways</p> <p>Use classification keys to help group, identify and name a variety of living things</p> <p>Recognise that environments can change and describe examples of living things that are threatened by changes to environments</p>	<b>N/A</b>	<p>States of Matter:</p> <p>Compare and group materials, according whether they are solids, liquids or gases Identify changes of state and research values of degrees Celsius at which changes happen</p> <p>Describe how evaporation and condensation happen in the water cycle, and how temperature affects evaporation</p>	<b>N/A</b>	<p>Sound: Explain, with reference to vibrations, how sounds are made</p> <p>Recognise that vibrations from sound travel through a medium to the ear</p> <p>Find patterns between pitch of a sound and features of object that produced it</p> <p>Find patterns between volume of sound and strength of vibrations that produced it.</p> <p>Recognise that sounds get fainter as the distance from the sound sources increases.</p>	<p>Compare how an object moves on different surfaces</p> <p>Notice some forces need contact between two objects , but magnetic forces act at distance</p> <p>Observe how magnets attract and repel each other and attract some materials and not others</p> <p>Compare and group materials on basis of testing for being magnetic</p> <p>Describe magnet as having two poles Predict if two magnets will attract or repel , depending on poles</p>	<b>N/A</b>	<p>List examples of appliances which run on electricity</p> <p>Construct a simple circuit and name components</p> <p>Predict whether a particular arrangement of components will result in a bulb lighting</p> <p>Predict how the operation of a switch will affect bulbs lighting</p> <p>Sort materials into conductors and insulators, identifying metals as conductors</p>	<b>N/A</b>

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<b>YEAR 5</b>	N/A	Describe he changes as humans develop into old age	Describe the differences in life cycles off a mammal, amphibian, insect and bird  Describe the stages of reproduction in some plants and animals	N/A	Test and sort a range of materials based on their physical properties  Describe how some materials dissolve in water and cannot be retrieved Justify how materials may be separated  Use evidence to justify the selection of material for a purpose  Explain reversible and irreversible change	N/A	N/A	Describe how motion may be resisted by water resistance, air resistance and friction  Recognise some mechanisms allow a smaller force to have a greater effect	N/A	N/A	Describe the Sun, Earth and Moon as spheres  Describe the movement of the Earth, relative to the Sun, in the solar system  Describe movement of Moon relative to Earth  Explain day and night, using idea od Earth's rotation and apparent movement of sun across the sky
<b>YEAR 6</b>	N/A	Identify and name main parts of circulatory system and describe function of heart, blood vessels and blood  Recognise the impact of diet, exercise, drugs and lifestyle on way our bodies function  Describe how nutrients and water are transported within animals, including humans	Use similarities and differences in observable features to decide how living things can be grouped.  Give reasons for classifying plants and animals based on specific characteristics	Use fossils as evidence that living things have changed over time  Recognise that offspring usually vary from each other and from their parents  Identify how plants and animals are adapted to suit their environment in different ways and that adaptation may lead to evolution	N/A	N/A	Recognise that light appears to travel in straight lines  Use light travelling in straight lines to explain that objects are seen because they give out or reflect light sources to objects and then to our eye  Explain how we see an object by referring to light travelling into the eye  Explain why shadows have the same shape as the objects that cast them by using he idea that light travels in a straight line			Explain how the number and voltage of cells affects the brightness of the lamp or volume of buzzer  Compare and give reasons for variations in how components function, including the brightness of bulbs, loudness of buzzer and on/off of switches	