

Science Curriculum Map

Term	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Autumn 1	<p>'Animals including Humans' Humans only this half term. Identify, name, draw and label basic parts of the human body and say which part of the body is associated with each sense; explore each of the 5 senses. (See statutory guidance)</p> <p>'Working Scientifically' Specific skills are developed throughout all lessons and one full investigation is written up per topic</p>	<p>'Animals, including Humans' Humans only this half term. Notice that animals, including humans, have offspring which grow into adults, find out about and describe the basic needs of animals, including humans, for survival (water, food and air) and describe the importance for humans of exercise, eating the right types of food, and hygiene. (See statutory guidance)</p> <p>'Working Scientifically' Specific skills are developed throughout all lessons and one full investigation is written up per topic</p>	<p>'Animals, including Humans' Identify that animals, including humans, need the right types and amount of nutrition, and they cannot make their own food; they get nutrition from what they eat. Identify that humans and some animals have skeletons and muscle for support, protection and movement. (See statutory guidance)</p> <p>'Working Scientifically' Specific skills are developed throughout all lessons and one full investigation is written up per topic</p>	<p>'Living Things and Their Habitats' Recognise that living things can be grouped in a variety of ways. Explore and use classification keys to help group, identify, and name a variety of living things in their local and wider environment. Recognise that environments can change and that this can sometimes pose dangers to living things. (See statutory guidance)</p> <p>'Working Scientifically' Specific skills are developed throughout all lessons and one full investigation is written up per topic</p>	<p>'Forces' Explain that unsupported objects fall to the Earth because of the force of gravity acting between the Earth and the falling object. Identify the effects of air resistance, water resistance and friction that act between moving surfaces. Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect. (See statutory guidance)</p> <p>'Working Scientifically' Specific skills are developed throughout all lessons and one full investigation is written up per topic</p>	<p>'Animals, including Humans' Identify and name the main parts of the Circulatory system, and describe the functions of the heart, blood vessels and blood. Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function. Describe the ways in which nutrients and water are transported within animals, including humans. (See statutory guidance)</p> <p>'Working Scientifically' Specific skills are developed throughout all lessons and one full investigation is written up per topic</p>
Autumn 2	<p>'Seasonal Changes Autumn and Winter' Observe changes across the seasons. Observe and describe weather associated with the seasons and how day length varies. How plants vary according to seasons. (See statutory guidance)</p> <p>'Working Scientifically' Specific skills are developed throughout all lessons and one full investigation is written up per topic</p>	<p>'Animals, including Humans' Animals only this half term. Notice that animals, including humans, have offspring which grow into adults, find out about and describe the basic needs of animals, including humans, for survival (water, food and air). (See statutory guidance)</p> <p>'Working Scientifically' Specific skills are developed throughout all lessons and one full investigation is written up per topic</p>	<p>'Plants' Identify and describe functions of different parts of flowering plant: roots, stem/trunk, leaves and flowers; explore requirements for plant life and growth (air, light, water, nutrients from soil and room to grow) and how they vary from plant to plant; investigate transportation of water; plant lifecycle including pollination, seed formation and seed dispersal. (See statutory guidance)</p> <p>'Working Scientifically' Specific skills are developed throughout all lessons and one full investigation is written up per topic</p>	<p>'Sound' Identify how sounds are made, associating some of them with something vibrating. Recognise that vibrations from sounds travel through a medium to the ear. Find patterns between the pitch of a sound and features of the object that produced it. Find patterns between the volume of the sound and the strength of the vibrations that produced it. Recognise that sound gets fainter as the distance from the sound source increases. (See statutory guidance)</p> <p>'Working Scientifically' Specific skills are developed throughout all lessons and one full investigation is written up per topic</p>	<p>'All Living Things and Their Habitats' Describe the difference in the life cycles of a mammal, an amphibian, an insect and a bird; describe the life process of reproduction in plants and animals. (See statutory guidance)</p> <p>'Working Scientifically' Specific skills are developed throughout all lessons and one full investigation is written up per topic</p>	<p>'Living Things and Their Habitats' 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. Give reasons for classifying plants and animals based on specific characteristics. (See statutory guidance)</p> <p>'Working Scientifically' Specific skills are developed throughout all lessons and one full investigation is written up per topic</p>

Spring 1	<p>'Plants'</p> <p>Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. Identify and describe the basic structure of a variety of common flowering plants, including trees. (See statutory guidance)</p> <p>'Working Scientifically'</p> <p>Specific skills are developed throughout all lessons and one full investigation is written up per topic</p>	<p>'Uses of Everyday Materials'</p> <p>Identify and compare the uses of a variety of everyday materials, including wood, plastic, metal, glass, brick, rock, paper and cardboard for particular purposes. Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. Linked to Fire of London. (See statutory guidance)</p> <p>'Working Scientifically'</p> <p>Specific skills are developed throughout all lessons and one full investigation is written up per topic</p>	<p>'Rocks'</p> <p>Compare and group different kinds of rocks based on appearance and simple physical properties, describe how fossils are formed when things that have lived are trapped within rock and recognise that soils are made from rocks and organic matter. (See statutory guidance)</p> <p>'Working Scientifically'</p> <p>Specific skills are developed throughout all lessons and one full investigation is written up per topic</p>	<p>'Electricity'</p> <p>Identify appliances that run on electricity, construct simple series electrical circuits, identify and name parts, including cells, wires, bulbs, switches and buzzers, identify whether or not a lamp will light based on whether or not the lamp is part of a complete loop with a battery, recognise that a switch opens and closes a circuit, recognise conductors and insulators, and associate metals with being good conductors. (See statutory guidance)</p> <p>'Working Scientifically'</p> <p>Specific skills are developed throughout all lessons and one full investigation is written up per topic</p>	<p>'Earth and Space'</p> <p>Describe the movement of the earth, and other planets, relative to the Sun in the Solar System. Describe the movement of the Moon relative to the earth. Describe the Sun, Earth and Moon as approximately spherical bodies. Use the idea of the earth's rotation to explain day and night and the apparent movement of the sun across the sky. (See statutory guidance)</p> <p>'Working Scientifically'</p> <p>Specific skills are developed throughout all lessons and one full investigation is written up per topic</p>	<p>'Evolution and Inheritance'</p> <p>Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago, recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents, identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. (See statutory guidance)</p> <p>'Working Scientifically'</p> <p>Specific skills are developed throughout all lessons and one full investigation is written up per topic</p>
Spring 2	<p>'Everyday Materials'</p> <p>Distinguish between an object and the material from which it is made. Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock. Describe physical properties of everyday materials, compare and group together a variety of everyday materials on the basis of their physical properties. (See statutory guidance)</p> <p>'Working Scientifically'</p> <p>Specific skills are developed throughout all lessons and one full investigation is written up per topic</p>	<p>'Plants'</p> <p>Observe and describe how seeds and bulbs grow into mature plants. Find out and describe how plants need light, water, and a suitable temperature to grow and stay healthy. (See statutory guidance)</p> <p>'Working Scientifically'</p> <p>Specific skills are developed throughout all lessons and one full investigation is written up per topic</p>	No topic this half term	No topic this half term	<p>Properties and Changes of Materials'</p> <p>Group materials on the basis of properties (hardness, solubility, transparency, thermal conductivity and response to magnets) know that some materials will dissolve in liquid to form a solution, describe how to recover a substance from a solution, use knowledge of solids, liquids and gases to decide how mixtures might be separated, including filtering, sieving and evaporating, give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic, demonstrate that dissolving, mixing and changes of state are reversible changes, explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda. (See statutory guidance)</p>	<p>'Light'</p> <p>Recognise that light appears to travel in straight lines, explain that objects are seen because they give out or reflect light into the eye, 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 and use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them. (See statutory guidance)</p> <p>'Working Scientifically'</p> <p>Specific skills are developed throughout all lessons and one full investigation is written up per topic</p>

Summer 1	<p>'Spring and Summer' Seasonal Changes</p> <p>Observe changes across the seasons. Observe and describe weather associated with the seasons and how day length varies. How plants vary according to seasons. (See statutory guidance)</p> <p>'Working Scientifically'</p> <p>Specific skills are developed throughout all lessons and one full investigation is written up per topic</p>	<p>'Living Things and Their Habitats'</p> <p>Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend upon each other and identify and name a variety of plants and animals in their habitats, including micro-habitats. (See statutory guidance)</p> <p>'Working Scientifically'</p> <p>Specific skills are developed throughout all lessons and one full investigation is written up per topic</p>	<p>'Light'</p> <p>Recognise that they need light in order to see things and that dark is the absence of light. Notice that light is reflected from sources. Recognise that light from the sun can be dangerous and that there are ways to protect their eyes. Recognise that shadows are formed when the light from a light source is blocked by a solid object. (See statutory guidance)</p> <p>'Working Scientifically'</p> <p>Specific skills are developed throughout all lessons and one full investigation is written up per topic</p>	<p>'States of Matter'</p> <p>Compare and group materials together, according to whether they are solids, liquids or gases. Observe that some materials change state when they are heated or cooled, and measure/research temperature at which this happens in degrees Celsius. Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature. (See statutory guidance)</p> <p>'Working Scientifically'</p> <p>Specific skills are developed throughout all lessons and one full investigation is written up per topic</p>	<p>'Animals Including Humans'</p> <p>Describe the changes as humans develop to old age. Could research gestation periods of other animals and compare with humans – length/mass. (See statutory guidance)</p> <p>RSE – Puberty</p> <p>'Working Scientifically'</p> <p>Specific skills are developed throughout all lessons and one full investigation is written up per topic</p>	No topic this half term
Summer 2	<p>'Animals including Humans'</p> <p>Identify, describe and compare common animals, including fish, reptiles, birds and mammals. Identify and name animals that are carnivores, herbivores and omnivores. Describe and compare the structure of common animals – fish, amphibians, reptiles, birds and mammals, including pets. (See statutory requirements)</p> <p>'Working Scientifically'</p> <p>Specific skills are developed throughout all lessons and one full investigation is written up per topic</p>	<p>'Living Things and Their Habitats' continued</p> <p>Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend upon each other and identify and name a variety of plants and animals in their habitats, including micro-habitats. (See statutory requirements)</p> <p>'Working Scientifically'</p> <p>Specific skills are developed throughout all lessons and one full investigation is written up per topic</p>	<p>'Forces and Magnets'</p> <p>Compare how things move on different surfaces. Notice that some forces need contact between 2 objects, but magnetic forces can act at a distance. Observe how magnets attract or repel each other and attract some materials and not others. Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials. Describe magnets as having 2 poles. Predict whether 2 magnets will attract or repel each other depending on which poles are facing. (See statutory requirements)</p> <p>'Working Scientifically'</p> <p>Specific skills are developed throughout all lessons and one full investigation is written up per topic</p>	<p>Animals including Humans</p> <p>Describe the simple functions of the basic parts of the digestive system in humans. Identify the different types of teeth in humans and their simple functions. Construct and interpret a variety of food chains, identifying producers, predators and prey. (See statutory requirements)</p> <p>Link to work in Geography on Kenya</p> <p>'Working Scientifically'</p> <p>Specific skills are developed throughout all lessons and one full investigation is written up per topic</p>	No topic this half term	<p>'Electricity'</p> <p>(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. (See statutory requirements)</p> <p>'Working Scientifically'</p> <p>Specific skills are developed throughout all lessons and one full investigation is written up per topic</p>