



The Canons CE Primary School Science Progression Map 2024-25



Science Topic	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Animals, including Humans Unit Objectives <i>NB Objectives are not necessarily taught in this order.</i>	Children will be able to describe some features of plants and animals and identify when things are the same and different. Children will be able to understand and use some language related to animals, e.g. camouflage, predator, nocturnal, diurnal. Children will have a good general knowledge about living things and the natural world and can describe features of different animal, recognising when they are the same and different. Children will explore the natural world around them, making observations and drawing pictures of animals.	I can identify and name the basic parts of the human body. I can describe parts of the human body. I know which parts of the human body are associated with each sense. I can recognise and describe animals in my local environment. I can name certain fish, amphibians, reptiles, birds and mammals. I can describe the similarities and differences between fish, amphibians, reptiles, birds and mammals. I can recognise herbivores, carnivores and omnivores from the animals that I know. I can describe the terms herbivore, omnivore and carnivore.	I can recognise why hygiene is important and what I must do to be hygienic. I can describe what should be included in a human's balanced diet. I can describe the importance of exercise for humans. I can describe the basic needs of animal, including humans, for survival. I can identify what the basic needs are for animals, including humans, for survival. I can identify that animals have offspring which grow into adults.	I can describe what would happen if a human did not have a skeleton. I can identify animals with and without skeletons. I can describe the function of muscles in humans. I can describe the function of a skeleton in humans. I can research and design my own balanced diet using different food groups. I can describe why animals need the right type and amount of nutrition. I can identify that animals, including humans, get their nutrition from what they eat.	I can identify and describe the basic parts of the human digestive system. I can compare the teeth of herbivores and omnivores. I can identify and describe the different types of teeth in humans and how they function. I can describe how to look after my teeth. I can identify and describe a producer in a food chain. I can identify and describe a predator in a food chain. I can identify and describe prey in a food chain. I can interpret a food chain. I can create my own food chain.	I can describe how humans grow and develop as they age. I can identify the changes to male and female bodies as they reach puberty. I can research and use evidence to describe the different gestation periods of various animals. I can find out and record how the length and mass of a baby changes over time.	I can identify and name the main parts of the human circulatory system. I can describe the functions of the heart, blood vessels and blood. I can describe how water and nutrients are transported around the body. I can describe how blood is pumped around the body. I can recognise the impact of an unhealthy diet. I can recognise the impact of drugs, alcohol and smoking on the human body. I can describe how to keep my body healthy.
Earth and Space Unit Objectives <i>NB Objectives are not necessarily taught in this order.</i>						I can name all of the planets. I can describe the Sun, Earth and Moon as approximately spherical bodies. I can describe the movement of the Earth, and other planets, relative to the Sun in the solar system. I can describe the movement of the Moon relative to the Earth. I can identify and describe that a moon orbits a planet. I can explain day and night, using the Earth's rotation and the movement of the Sun across the sky.	
Electricity Unit Objectives <i>NB Objectives are not necessarily taught in this order.</i>					I can identify common appliances that run on electricity. I can identify the basic parts of a simple series electrical circuit e.g. cells, wires, bulbs, switches and buzzers. I can create a simple series electrical circuit using basic parts. I can describe what will happen if the circuit isn't complete.		I can construct simple series circuit diagram using recognised symbols. I can investigate the impact the number and voltage of cells has on the brightness of a lamp. I can investigate the impact the number and voltage of cells has on the volume of a buzzer. I can investigate and describe the variations in how components



The Canons CE Primary School Science Progression Map 2024-25



					I can describe the impact of an open and / or closed switch on a simple series circuit. I can recognise and describe some common conductors. I can recognise and describe some common insulators. I can identify metals that are good conductors. I can describe how to work safely with electricity.		function e.g. the brightness of bulbs, loudness of buzzers and on/off position of switches.
Evolution and Inheritance Unit Objectives <i>NB Objectives are not necessarily taught in this order.</i>							I can recognise that living things have changed over time. I can describe how fossils provide information about living things that inhabited the Earth millions of years ago. I can use evidence from my observations to describe how offspring vary and are not identical to their parents. I can describe how variations occur between individuals of the same species. I can research and identify how animals and plants are adapted to suit their environment in different ways. I can describe how adaptation can lead to evolution.
Forces Unit Objectives <i>NB Objectives are not necessarily taught in this order.</i>						I can recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect. I can identify the effects of air resistance, water resistance and friction that act between moving surfaces. I can explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.	
Forces and Magnets Unit Objectives <i>NB Objectives are not necessarily</i>				I can 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. I can describe how objects move on different surfaces. I can investigate that some forces			



The Canons CE Primary School Science Progression Map 2024-25



<i>taught in this order.</i>				need contact between two objects e.g. push and pull. I can describe how pushes and pulls can alter the movement and speed of an object over a distance. I can observe how magnets attract and repel each other. I can investigate how magnets attract some materials and not others. I can describe how magnets have two poles. I can predict whether two magnets will repel or attract one another depending on their poles.			
Light Unit Objectives <i>NB Objectives are not necessarily taught in this order.</i>				I can recognise that we need light in order to see things. I can describe what happens when there is an absence of light. I can describe what happens when light hits a reflective surface. I can describe how light from the sun can be dangerous and the ways that I can protect my eyes. I can recognise how shadows are formed when a solid object blocks the light. I can investigate how the size of shadows change. I can find patterns in the way that the size of shadows change.			I can use examples to show that light appears to travel in straight lines. I can demonstrate that light travels in straight lines to explain how objects are seen. I can discuss how objects are seen using scientific vocabulary e.g. light source and reflection. I can use my knowledge of the way light travels to describe how shadows are formed.
Living Things and Their Habitats Unit Objectives <i>NB Objectives are not necessarily taught in this order.</i>			I can compare the differences between things that are living, dead and things that have never been alive. I can identify that most living things live in habitats to which they are suited to provide their basic needs. I can describe how certain animals are suited to their habitats. I can describe how animals get their food from plants and other animals. I can identify and name a variety of plants and animals in their habitats, including micro-habitats.		I can group animals into vertebrates and invertebrates. I can group plants into categories such as flowering plants and non-flowering plants. I can use keys to identify living things in my local environment. I can recognise that environments change over time. I understand the impact humans have on my local environment. I can research and describe the positive human effects on an environment such as creating nature reserves. I can research and describe the	I can describe the similarities and differences between the life cycles of different plants. I can describe the similarities and differences between the life cycles of different animals to include mammals, amphibians, insects and birds. I can identify the processes of sexual reproduction in animals. I can identify the processes of sexual reproduction in plants. I can describe asexual reproduction in plants. I can compare the life cycles of plants in my local environment to different habitats around the	I can give reasons why living things can be classified into different groups. I can describe the main features of particular groups such as vertebrates and invertebrates. I can use my research of animals unknown to me in order to classify them.



The Canons CE Primary School Science Progression Map 2024-25



			I can create a simple food chain for habitats in my local environment.		negative human effects on an environment such as dropping litter and pollution.	world (such as in the rainforest or in the Arctic).	
Materials Unit Objectives <i>NB Objectives are not necessarily taught in this order.</i>	Children will know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class. Children will understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.	I can identify and name everyday materials. I can recognise objects and the materials they are made from. I can describe the properties of everyday materials. I can describe the similarities and differences between everyday materials. I can group materials by their properties. I can describe why certain materials are used for certain purposes e.g. bricks and houses.	I can identify the suitability of everyday materials for particular uses. I can recognise that certain materials can be used for more than one purpose e.g. wood can be used for matches and floors. I can recognise that certain objects can be made using different materials. I can squash, bend, twist and stretch certain objects and describe how the material makes the shape change.			I can compare & group everyday materials on the basis of their properties e.g. hardness, solubility, transparency, conductivity (electrical and thermal) and response to magnets. I can recognise that some materials will dissolve in liquid to form a solution. I can describe how to recover a substance from a solution. I can use my knowledge of solids, liquids and gases to decide how mixtures might be separated. I can use evidence from my tests to decide how to use everyday materials effectively. I can demonstrate that dissolving, mixing & changing are reversible processes. I can explain that certain changes are irreversible and new materials can be formed e.g. burning.	
Plants Unit Objectives <i>NB Objectives are not necessarily taught in this order.</i>	Children will have a good general knowledge about living things and the natural world and can describe features of different plants, recognising when they are the same and different. Children will explore the natural world around them, making observations and drawing pictures of plants.	I can identify and name a variety of common wild and garden plants and trees, and those classified as deciduous and evergreen. I can name the different parts of a flower e.g. root, stem, leaf. I can compare flowers and plants to identify similarities and differences. I can describe how flowers grow.	I can describe how seeds and bulbs grow into plants. I can identify what a seed needs to germinate. I can find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.	I can identify the different parts of a flowering plant. I can describe the functions and different parts of a flowering plant. I can describe how the structure of the plant links to its function. I can identify the requirements of a plant for life & growth (air, water, light, nutrients from soil, and room to grow) and how they vary from plant to plant. I can describe how water is transported through a plant. I can describe how seeds are formed. I can describe how seeds are dispersed. I can describe the process of pollination.			
Rocks Unit Objectives				I can compare different kinds of rocks based on their appearance. I can compare different kinds of			



The Canons CE Primary School Science Progression Map 2024-25



<i>NB Objectives are not necessarily taught in this order.</i>				rocks based on their simple physical properties. I can describe how fossils are formed. I can describe the fossils I have observed. I can describe how soils form. I can research the different kinds of living things whose fossils are found in sedimentary rock. I can observe how rocks change over time.			
Seasonal Changes Unit Objectives <i>NB Objectives are not necessarily taught in this order.</i>	Children can notice, observe and talk about seasonal changes. Children will understand some important processes and changes in the natural world around them, including the changing seasons.	I can observe and describe the weather within the seasons & how the length of the days change. I can describe the four seasons. I can talk about the changes to plants across the seasons. I can talk about the changes to the weather across the seasons.					
Sound Unit Objectives <i>NB Objectives are not necessarily taught in this order.</i>					I can recognise that sounds get fainter as the distance from the sound source increases. I can identify how sounds are made. I can describe how sounds travel to my ear e.g. vibrations through the air. I can recognise patterns between the pitch of a sound and the features of an object that produced the sound. I can recognise patterns between the volume of a sound and the strength of the vibrations that produced it. I can describe what happens when you move away from the source of a sound.		
States of Matter Unit Objectives <i>NB Objectives are not necessarily taught in this order.</i>	Children will understand some important processes and changes in the natural world around them, including the changing states of matter.				I can compare and describe solids, gases and liquids. I can group materials by whether they are a solid, liquid or gas. I can observe how materials change state when heated or cooled and measure or research the temperature at which this happens in degrees Celsius.		



The Canons CE Primary School Science Progression Map 2024-25



					I can use the terms evaporation and condensation when describing the water cycle.		
Working Scientifically Objectives <i>NB Objectives are not necessarily taught in this order.</i> <i>NB Working scientifically is taught through the knowledge content of the curriculum.</i>	During the EYFS, pupils will work scientifically through play-based, hands on experiences, that encourage curiosity, observation and exploration. The focus is on developing foundational scientific skills, rather than formal scientific methods. They engage in scientific learning through: - Exploring and observing (e.g. sensory play, outdoor learning, cause and effect) - Asking questions (children naturally ask why, what and how) - Testing ideas through play (simple experiments, building and problem solving) - Observing changes (watching things grow, floating and sinking etc) - Developing vocabulary (guided conversations) - Encouraging curiosity and exploration (adults support pupils by providing resources, asking open-ended questions and guiding them to notice patterns or make connections).	I can ask simple questions and recognise that they can be answered in different ways. I can observe closely, using simple equipment. I can perform simple tests. I can identify and classify. I can use my observations and ideas to suggest answers to questions. I can gather and record data to help in answering questions.	I can ask relevant questions and use different types of scientific enquiries to answer them. I can set up simple practical enquiries, comparative and fair tests. I can make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. I can gather, record, classify and present data in a variety of ways to help in answering questions. I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables. I can report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. I can use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. I can identify differences, similarities or changes related to simple scientific ideas and processes. I can use straightforward scientific evidence to answer questions or to support my findings.	I can plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. I can take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings where appropriate. I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. I can use test results to make predictions to set up further comparative and fair tests. I can report and present findings from enquiries, including conclusions, casual relationships and explanations of result, in oral and written forms such as displays and other presentations. I can identify scientific evidence that has been used to support or refute ideas or arguments.			
		During years 1 and 2, pupils are taught to use the above practical scientific methods, processes and skills, through the teaching of the knowledge content of the curriculum. They will use different types of scientific enquiry to learn, practise and embed these skills.	During years 3 and 4, pupils are taught to use the above practical scientific methods, processes and skills, through the teaching of the knowledge content of the curriculum. They will use different types of scientific enquiry to learn, practise and embed these skills.	During years 5 and 6, pupils are taught to use the above practical scientific methods, processes and skills, through the teaching of the knowledge content of the curriculum. They will use different types of scientific enquiry to learn, practise and embed these skills.			