

Science
Curriculum and Assessment Map
EYFS

	0-3 Preschool	3-4 EYFS 1	Reception EYFS 2	Links to KS1 Curriculum
EYFS area of Learning	Understanding the World: The Natural World			
Fundamental Knowledge	<p>Repeat actions that have an effect whilst exploring materials inside and outside with different properties.</p> <p>Explore and respond to different natural phenomena in their setting and on trips</p> <p>Explore and respond to different natural phenomena in their setting and on trips.</p>	<p>Explore how things work.</p> <p>Plant seeds and care for growing plants.</p> <p>Begin to understand the need to respect and care for the natural environment and all living things.</p>	<p>Explore the natural world around them and describe what they see, hear and feel while they are outside.</p> <p>Recognise some environments that are different to the one in which they live</p> <p>Understand the effect of changing seasons on the natural world around them.</p>	<p>Ask simple questions and recognising that they can be answered in different ways. Use their observations and ideas to suggest answers to questions</p> <p>Observing closely, using simple equipment. Performing simple tests. Identifying and classifying.</p> <p>Gathering and recording data to help in answering questions.</p>
Early Learning Goal	<p><i>Explore the natural world around them, making observations and drawing pictures of animals and plants.</i></p> <p><i>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.</i></p> <p><i>Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter</i></p>			

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	Half Term 1	Half-Term 2	Half Term 3	Half Term 4	Half Term 5	Half Term 6
Year 1	Animals		Materials	Weather	Plants	Senses
Fundamental Knowledge	<p>Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.</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 (fish, amphibians, reptiles, birds and mammals including pets).</p>		<p>Distinguish between an object and the material from which it is made</p> <p>Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock</p> <p>Describe the simple physical properties of a variety of everyday materials</p> <p>Compare and group together a variety of everyday materials on the basis of their simple physical properties</p>	<p>Observe changes across the 4 seasons</p> <p>Observe and describe weather associated with the seasons and how day length varies</p>	<p>Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees.</p> <p>Identify and describe the basic structure of a variety of common flowering plants, including trees.</p>	<p>Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense</p>
Learning Checkpoint Tasks	<p>Labelled pictures</p> <p>Information text</p>		<p>Investigation</p>	<p>Weather diary</p>	<p>Labelled picture</p>	<p>Information text</p>
Interleaved Knowledge	<p>Explore the natural world around them.</p>			<p>Understand the effects of the changing seasons on the natural world around them.</p>	<p>Recognise that some environments are different to the one in which they live.</p>	<p>Describe what they see, hear and feel outside.</p>

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	Half Term 1	Half-Term 2	Half Term 3	Half Term 4	Half Term 5	Half Term 6
Year 2	Habitats	Food chains	Materials	Changing Materials	Plants	Healthy Me
Fundamental Knowledge	<p>Explore and compare the differences between things that are living, dead, and things that have never been alive.</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 on each other.</p> <p>Identify and name a variety of plants and animals in their habitats, including microhabitats</p>	<p>Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.</p>	<p>identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses</p>	<p>find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching</p>	<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 temperature to grow and stay healthy</p>	<p>Notice that animals, including humans, have offspring which grow into adults.</p> <p>Find out about and describe the basic needs of animals, including humans, for survival (water, food and air)</p> <p>Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene</p>
Learning Checkpoint Tasks	Information text	Food chain diagram	Investigation	Investigation	Investigation	Health Guide

Interleaved Knowledge	Identify fish, amphibians, reptiles, birds and mammals. Identify carnivores, herbivores and omnivores.	Name, describe and compare everyday materials.	Identify common wild plants. Structure of plant.	Name body parts
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	Half Term 1	Half-Term 2	Half Term 3	Half Term 4	Half Term 5	Half Term 6
Year 3	Nutrition & Movement	Rocks & Fossils	Light	Forces	Plants	
Fundamental Knowledge	Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat. Identify that humans and some other animals have skeletons and muscles for support, protection and movement.	Describe in simple terms how fossils are formed when things that have lived are trapped within rock. Recognise that soils are made from rocks and organic matter.	Notice that light is reflected from surfaces. 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 an opaque object. Find patterns in the way that the size of shadows change.	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.	Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers. Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant. Investigate the way in which water is transported within plants. Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.	

Learning Checkpoint Tasks	Information text	Explanation text	Investigation	Investigation	Investigation
Interleaved Knowledge	Food chains Habitats			Materials can be changed by bending stretching and squashing.	Seeds and bulbs Requirements for growth

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	Half Term 1	Half-Term 2	Half Term 3	Half Term 4	Half Term 5	Half Term 6
Year 4	Habitats	Electricity	States of Matter & Water Cycle	Sound	Digestion	
Fundamental Knowledge	<p>Recognise that living things can be grouped in a variety of ways.</p> <p>Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.</p> <p>Recognise that environments can change and that this can sometimes pose dangers to living things.</p>	<p>Identify common appliances that run on electricity.</p> <p>Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.</p> <p>Identify whether or not a lamp will light in a simple series circuit, 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 and associate this with whether or not a lamp lights in a simple series circuit.</p> <p>Recognise some common conductors and insulators, and associate metals with being good conductors.</p>	<p>Compare and group materials together, according to whether they are solids, liquids or gases.</p> <p>Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C).</p> <p>Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.</p>	<p>Identify how sounds are made, associating some of them with something vibrating.</p> <p>Recognise that vibrations from sounds travel through a medium to the ear.</p> <p>Find patterns between the pitch of a sound and features of the object that produced it.</p> <p>Find patterns between the volume of a sound and the strength of the vibrations that produced it.</p> <p>Recognise that sounds get fainter as the distance from the sound source increases.</p>	<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>	

Learning Checkpoint Tasks	Classification task	Labelled circuit diagrams	Explanation text	Investigation	Labelled diagrams
Interleaved Knowledge	Requirements for life	Forces	Rocks and Fossils	Light	

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	Half Term 1	Half-Term 2	Half Term 3	Half Term 4	Half Term 5	Half Term 6
Year 5	Life Cycles & Human Development (Puberty)	Forces	Forces (Gravity)	Space	Materials	
Fundamental Knowledge	<p>Describe the changes as humans develop to old age.</p> <p>Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.</p> <p>Describe the life process of reproduction in some plants and animals.</p>	<p>Identify the effects of air resistance, water resistance and friction, that act between moving surfaces.</p> <p>Recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect.</p>	<p>Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.</p>	<p>Describe the movement of the Earth and other planets relative to the sun in the solar system.</p> <p>Describe the movement of the moon relative to the Earth.</p> <p>Describe the sun, Earth and moon as approximately spherical bodies.</p> <p>Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.</p>	<p>Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution.</p> <p>Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.</p> <p>Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.</p> <p>Demonstrate that dissolving, mixing and changes of state are reversible changes.</p> <p>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.</p>	

Learning Checkpoint Tasks	Labelled life cycle diagram	Investigation	Explanation	Information text	Investigation
Interleaved Knowledge		Electricity		Sound	States of matter

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	Half Term 1	Half-Term 2	Half Term 3	Half Term 4	Half Term 5	Half Term 6
Year 6	Healthy Living & Classification	Light	Evolution & Inheritance	Circulation System	Electric Circuits	Human Development (Sex Ed)
Fundamental Knowledge	<p>Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function.</p> <p>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.</p> <p>Give reasons for classifying plants and animals based on specific characteristics</p>	<p>Recognise that light appears to travel in straight lines.</p> <p>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.</p> <p>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.</p> <p>Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.</p>	<p>Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.</p> <p>Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.</p>	<p>identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.</p> <p>Describe the ways in which nutrients and water are transported within animals, including humans</p>	<p>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.</p> <p>Use recognised symbols when representing a simple circuit in a diagram.</p>	<p>Technical names for reproductive anatomy.</p> <p>Menstruation</p> <p>Conception</p>

Learning Checkpoint Tasks	Healthy Living Guide	Investigation	Explanation text	Information text	Investigation	
Interleaved Knowledge		Space			Forces	Life cycles and human development