



SCIENCE CURRICULUM COVERAGE

Level Expected at the End of EYFS

- Explore the natural world around them, making observations and drawing pictures of animals and plants;
- 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;
- Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.

Key Stage 1 National Curriculum Expectations

Pupils should be taught:

asking simple questions and recognising that they can be answered in different ways ♣ observing closely, using simple equipment ♣ performing simple tests ♣ identifying and classifying ♣ using their observations and ideas to suggest answers to questions ♣ gathering and recording data to help in answering questions. identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals ♣ identify and name a variety of common animals that are carnivores, herbivores and omnivores ; 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 the simple physical properties of a variety of everyday materials ♣ compare and group together a variety of everyday materials on the basis of their simple physical properties.; observe changes across the four seasons ♣ observe and describe weather associated with the seasons and how day length varies.;

2- explore and compare the differences between things that are living, dead, and things that have never been alive ♣ 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 ♣ identify and name a variety of plants and animals in their habitats, including microhabitats ♣ 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.; observe and describe how seeds and bulbs grow into mature plants ♣ find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.; 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) ♣ describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.; identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses ♣ find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.

Key Stage 2 National Curriculum Expectations

Pupils should be taught:

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Knowledge and Skills Progression							
	Area						
	Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Humankind: Human body	he basic body parts are the head, arms, legs, nose, eyes, ears, mouth, hands and feet. Different body parts are used for different things, such as the eyes are used to see. Draw pictures of the human body and name some of the different body parts.	The basic body parts are the head, arms, legs, nose, eyes, ears, mouth, hands and feet. The five senses are hearing, sight, smell, taste and touch. Ears are used for hearing, eyes are used to see, the nose is used to smell, the tongue is used to taste and skin gives the sense of touch. Draw and label the main parts of the human body and say which body part is associated with which sense					
Staying safe	rules help to keep us safe in different	It is important to stay safe. Some ways to stay safe					

	environments and when using certain equipment. Follow instructions when in different environments and when handling simple equipment, such as scissors.	include staying safe in strong sunlight (sun cream, sun hat and sunglasses), crossing roads (stop, look and listen), in the kitchen (not touching hot or sharp objects) and with household chemicals (not touching, drinking or eating). Describe ways to stay safe in some familiar situations.					
Healthy lifestyle	washing and drying their hands, especially after using the toilet and before eating, helps stop the spread of harmful germs. Wash and dry hands regularly and say why this is important.	Hand washing and good hygiene are important parts of a healthy lifestyle and prevent the spread of germs. Explain why hand washing and cleanliness are important.					
Processes: Pattern seeking	he weather can change throughout the day, week and month. The weather is different at different times in the year. Notice and begin to describe patterns of weather in summer and winter.	There are four seasons: spring, summer, autumn and winter. Certain events and weather patterns happen in different seasons. Observe changes across the four seasons.					
Changes	the number of daylight hours varies throughout the year, according to the season. The days are longer in summer and shorter in winter. Notice and talk about the differences in day length between the seasons.	Day length (the number of daylight hours) is longer in the summer months and shorter in the winter months. Observe and describe how day length changes across the year.					
Earth	ways to describe daily weather include sunny, rainy, windy, cloudy, warm or cold. Weather is warmer in the summer with more sunshine and colder in the winter with more snow, hail and rain. Describe simply how weather changes as the seasons change.	Different types of weather include sunshine, rain, hail, wind, snow, fog, lightning, storm and cloud. The weather can change daily and some weather types are more common in certain seasons, such as snow in winter. Observe and describe different types of weather.					
Phenomena	Natural phenomena include weather, shadows, rainbows, clouds, flooding and waves. Name and describe natural phenomena, such as the size of shadows, the colours of a rainbow, the speed of clouds moving across the sky and the strength of a wave.	A shadow is formed when light from a light source, such as the Sun, is blocked by an opaque object, but not by transparent objects. Explain in simple terms how shadows are formed.					

Forces	some objects float and others sink. When an object sinks it falls through water to the bottom of the vessel. An object that floats stays at the water's surface. Describe, predict and sort things that float and sink and talk about the forces that they can feel.	Simple equipment can be used for measuring weather, such as measuring temperature with a thermometer; identifying wind direction and force with a windsock or measuring rainfall with a rain gauge. Investigate weather using toys, models or simple equipment.					
Modelling	some light sources need electricity or batteries to work, such as a torch, and some do not, such as candles. Explore and describe electrical and nonelectrical light sources.	Electrical circuits can light lamps or sound a buzzer. A switch turns an electrical circuit off and on. Describe, following exploration, what simple electrical circuits can do.					
Creativity: Report and conclude	represent scientific observations by mark making, drawing or creating simple charts and tables. Offer explanations for why things happen, making use of vocabulary, such as, because, then and next.	The results are information that has been found out from an investigation. Talk about what they have done and say, with help, what they think they have found out.					
Gather and record data	data can be recorded in tables and pictograms. Record data in simple tables and pictograms.	Data can be recorded and displayed in different ways, including tables, pictograms and drawings. With support, gather and record simple data in a range of ways (data tables, diagrams, Venn diagrams).					
Investigation: Questioning	question words include who, why, what, when, where and how. Ask a relevant scientific question to find out more, explain how things work and why they might happen.	Question words include what, why, how, when, who and which. Ask simple scientific questions.					
Measurement	simple equipment can be used to measure distance, height, weight and time. With support, use simple equipment, such as timers, rulers and containers, to measure length, height, capacity and time.	Simple equipment is used to take measurements and observations. Examples include metre sticks, measuring tapes, egg timers and hand lenses. With support, use simple equipment to measure and make observations.					
Investigation	when we try things out to see if they work, it is called a test. Observe how activities are going and adapt their ideas if necessary.	Simple tests can be carried out by following a set of instructions. With support, follow instructions to perform simple tests and begin to talk about what they might do or what might happen.					
Observation	With support, observe, record and talk about	Objects, materials and living things can be looked					

	materials and living things.	at and compared. Observe objects, materials, living things and changes over time, sorting and grouping them based on their features.					
Materials: Identification and classification	objects are made from different materials. Everyday materials include, wood, plastic, glass, fabric, metal and stone. Materials have different properties. Name and sort everyday items into groups of the same material.	A material is what an object is made from. Everyday materials include wood, plastic, glass, metal, water, rock, brick, paper and fabric. Identify and name what an object is made from, including wood, plastic, glass, metal, water and rock.					
Properties and uses	some materials are magnetic, which means that they are attracted to (pull towards) a magnet. Some metals are magnetic. Other materials are non- magnetic, such as wood, dough and glass. Identify that materials have different properties and explore and sort magnetic and non-magnetic materials through play and exploration.	Materials have different properties, such as hard or soft; stretchy or stiff; rough or smooth; opaque or transparent; bendy or rigid; waterproof or not waterproof. Investigate and describe the simple physical properties of some everyday materials, such as hard or soft; stretchy or stiff; rough or smooth; opaque or transparent; bendy or rigid and waterproof or not waterproof.					
Nature: Identification and classification	plants and trees are living things. They can be identified according to their features, such as leaves, seeds and flowers. Begin to name and group plants and trees according to their observable features. Animals are living things. There are different types of animal. Parent and baby mammals include cow and calf, sheep and lamb, and cat and kitten. Parent and baby birds include duck and duckling, chicken and chick, and goose and gosling. Match animals to their young.	Plants are living things. Common plants include the daisy, daffodil and grass. Trees are large, woody plants and are either evergreen or deciduous. Trees that lose their leaves in the autumn are called deciduous trees. Examples include oak, beech and rowan. Trees that shed old leaves and grow new leaves all year round are called evergreen trees. Examples include holly and pine. Identify, compare, group and sort a variety of common wild and garden plants, including deciduous and evergreen trees, based on observable features. Animals are living things. Animals can be sorted and grouped into six main groups: fish, amphibians, reptiles, birds, invertebrates and mammals. Identify, compare, group and sort a variety of common animals, including fish, amphibians, reptiles, birds, invertebrate					
Parts and functions	parts of plants and trees include trunk, branch,	The basic plant parts include root, stem, leaf,					

	<p>twig, roots, stem, flowers and leaves. Name and describe basic features of plants and trees.</p> <p>Different animal groups have some common body parts, such as birds have wings and fish have fins.</p> <p>Identify common features for different groups of animals, including wild and domestic animals.</p>	<p>flower, petal, fruit, seed and bulb. Trees have a woody stem called a trunk. Label and describe the basic structure of a variety of common plants.</p> <p>Different animal groups have some common body parts, such as eyes and a mouth, and some different body parts, such as fins or wings. Label and describe the basic structures of a variety of common animals, including fish, amphibians, reptiles, birds and mammals.</p>					
Nutrition	<p>animals eat different kinds of food, including other animals, plants or both animals and plants. Match animals to the foods that they eat.</p>	<p>Carnivores eat other animals (meat), herbivores eat plants and omnivores eat other animals and plants. Group and sort a variety of common animals based on the foods they eat.</p>					
Survival	<p>Plants and animals are living things. Plants need water, sunlight and air to survive. Animals need food, water, air and shelter to survive. Describe some ways that plants or animals should be cared for in order for them to survive.</p>	<p>Living things need to be cared for in order for them to survive. They need water, food, warmth and shelter. Describe how to care for plants and animals, including pets</p>					
Place and space: Habitats	<p>A habitat is a place where living things live. Local habitats include woodlands, gardens and ponds. Other habitats include hot places, such as deserts, and cold places, such as the Arctic. Observe and describe living things and their habitats within the local environment.</p>	<p>The local environment is a habitat for living things and can change during the seasons. Observe the local environment throughout the year and ask and answer questions about living things and seasonal change.</p>					
Comparison: physical things	<p>objects can be compared and grouped according to their shape, colour, material or use. Compare and group objects and materials according to simple given criteria.</p>	<p>Materials can be grouped according to their properties. Compare and group materials in a variety of ways, such as based on their physical properties; being natural or man-made and being recyclable or non-recyclable.</p>					
Phenomena	<p>A shadow is the same shape as the object that makes it. Shadows change during the day. Make a shadow bigger or smaller using toys, play equipment and a light source.</p>	<p>Shadows are normally the same shape as the object that cast them. Shadows change during the day as the Sun appears to change position in the sky. Shadows occur where light is blocked by an opaque object. Compare shadows made by</p>					

		different objects and materials.					
Change: Living things	Living things change over time. This includes growth and decay. Explore the natural world around them and give simple descriptions, following observation, of changes.	All living things (plants and animals) change over time as they grow and mature. Describe, following observation, how plants and animals change over time.					