

Science Curriculum 2023/24 – Years 1 & 2

	Autumn 1	Autumn 2
Topic	<p>Animals Children will learn how to group animals based on observable characteristics such as feathers, hair, scales etc. They will discuss differences between different types of animals, relating their features to information about where they live and what they eat. Children will learn that animals have babies, born either as live young or hatched from eggs.</p>	<p>Uses of Everyday Materials Children will learn the names of everyday materials and what they are made of. They will learn that materials have different properties, and because of this, materials are used in different ways. Children will learn that the shape of some materials can be changed by squashing, bending, twisting and stretching, and about the suitability of materials for different purposes. They will also learn about the work of a famous scientists, Charles Macintosh, and how he made a raincoat.</p>
Knowledge	<p>Knowledge</p> <ul style="list-style-type: none"> Know the name of a variety of common animals including fish, amphibians, reptiles, birds and mammals (<i>they don't need to know the group names at this point</i>) Know the structure of a variety of common animals Know that some animals are awake at night and sleep during the day Know the name of a variety of common animals that are carnivores, herbivores and omnivores Know that animals have offspring which grow into adults. They may lay eggs or give birth to live young Know the basic needs of animals for survival (water, food, air) <p>Skills</p> <ul style="list-style-type: none"> Know how to ask simple questions and recognise they can be answered in different ways Know how to describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets) Know how to use observations to compare and classify animals at first hand or through videos and photographs, describing how to identify them Know how to group animals according to what they eat, using simple prepared tables and sorting rings 	<p>Knowledge</p> <ul style="list-style-type: none"> Know the name of a variety of everyday materials including: wood, metal, fabric, plastic, glass, brick, rock, rubber, paper and cardboard Know that objects are made from materials Know the uses of different materials and that some materials are used for more than one thing Know that the properties of materials make them suitable or unsuitable for particular purposes Know how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching Know about the work of Charles Macintosh and how he developed a useful new waterproof material <p>Skills</p> <ul style="list-style-type: none"> Know how to identify and classify the uses of different materials, using simple prepared table sand sorting rings Know how to use close observation to compare the suitability and uses of a variety of everyday materials in and around school with materials found in other places (at home, the journey to school, on visits, and in stories, rhymes and songs) Know how to record their observations, using drawings, photographs or writing, to help in answering questions
Vocab	carnivore, herbivore, omnivore, nocturnal, offspring, spine, gills, fur, feathers, skin, scales, legs, wings, tail, ears, nose, beak, hands, claws, survival, water, food, air	wood, metal, plastic, glass, brick, rock, glass, rubber, paper, cardboard, squashing, bending, twisting, stretching, transparent, translucent, opaque, waterproof, absorbent, hard, soft, rough, smooth, flexible, elastic, shiny, dull



Science Curriculum 2023/24 – Years 1 & 2

	Spring 1	Spring 2
Topic	<p>Living Things in Their Habitats (overseas)</p> <p>Children will learn that animals and plants need different things and that a habitat provides these things. In this unit, the children will focus on plants and animals that live in deserts, mountains and grassland in India. They will explore the different living conditions within these habitats, and that things that live there are suited to these environments. They will also learn that animals and plants depend on each other in order to meet their needs for survival.</p>	<p>Plants</p> <p>Children will go on a walk to see some of the many plants around school. They will learn what is the same about all plants they can see – leaves. They will observe that some plants have blossom, flowers or fruit. Children will learn how to label the basic structure of common flowering plants, and they will learn the names of plants in their local environment. Children will learn about deciduous and evergreen trees, and they will identify these in the school playground. They will plant their own seeds, and they will care for them and observe them as they grow, using simple equipment.</p>
Knowledge	<p>Knowledge</p> <ul style="list-style-type: none"> Know that a habitat is a natural environment, or a home to a variety of plants and animals Know the names of a variety of plants and animals in India Know that some living things are suited to live in habitats in India, including: a cactus, vulture, desert fox and snake Know that India has different habitats (including, desert, mountain and grassland) that provide for the basic needs of different kinds of living things and that the conditions in these habitats affect the number and type of animals that live there Know how plants and animals depend on each other in habitats in India (for example, food sources and shelter for animals) Know that animals obtain their food from plants and other animals in habitats in India <p>Skills</p> <ul style="list-style-type: none"> Know how to raise and answer questions to help them identify and study a variety of plants and animals found in less familiar habitats Know how to identify and name different sources of food, using a simple food chain Know how to construct a simple food chain that includes humans (e.g. grass, cow, human) 	<p>Knowledge</p> <ul style="list-style-type: none"> Know that some trees keep their leaves all year round, and that other trees lose their leaves in Autumn Know the names of a variety of common wild and garden plants, including deciduous and evergreen trees Know the basic structure of a variety of common flowering plants, including trees (including leaves, flowers (blossom), petals, fruit, roots, bulb, seed, trunk, branches, stem) Know that plants can live in different places <p>Skills</p> <ul style="list-style-type: none"> Know how to ask and answer simple questions about plants growing in their habitat Know how to observe the growth of flowers and vegetables that they have planted, using simple equipment such as hand lenses and cameras Know how to identify and group a variety of common plants, using simple prepared tables and sorting rings Know how to compare and contrast familiar plants, using simple equipment such as hand lenses
Vocab	<p>habitat, grassland, desert, mountain, living conditions, survival, food source, shelter, protection</p>	<p>deciduous, oak, ash, willow, evergreen, yew, holly, spruce, wild plants, dandelion, daisy, nettles, ivy, garden plants, pansy, rose, lavender, fuchsia, trunk, blossom, petal, flower, leaf, fruit, bulb, seed, bud, branch, stem, roots, Autumn, Spring</p>



Science Curriculum 2023/24 – Years 1 & 2

	Summer 1	Summer 2
Topic	<p>Living Things in Their Habitats (oceans)</p> <p>In this unit, the children will focus on plants and animals that live in oceans. They will find out about the living conditions, that oceans provide, and how this affects the number and type of animals that live there, and they will compare how these are different to animals that live in more familiar habitats. They will explore how living things in the ocean are suited to living there and how animals obtain their food in this habitat. Children will find out about Rachel Carson, a famous scientist, who studied the ocean.</p>	<p>Animals including Humans</p> <p>Children will learn the names of the basic parts of the body through games, actions, songs and rhymes. They will be able to recall the five senses and will learn which body parts associated with each one. Using their senses, they will explore and compare different sounds, textures and smells. Children will revisit earlier work on animals, about offspring and the basic needs for survival, but in relation to humans. They will begin to look briefly at keeping healthy, by eating the right amounts of different types of food, doing exercise and keeping good hygiene. Children will take part in a demonstration of how germs spread, in relation to the work of Louis Pasteur.</p>
Knowledge	<p>Knowledge</p> <ul style="list-style-type: none"> Know the names of a variety of plants and animals that live in ocean habitats Know that some living things are suited to live in the ocean (polar and coral) Know that an ocean habitat provides for the basic needs of different kinds of living things and that the conditions in the ocean affect the number and type of animals that live there Know how plants and animals depend on each other in the ocean (for example, food sources and shelter for protection) Know that animals obtain their food from plants and other animals in the ocean Know that Rachel Carson was an American scientist who studied the ocean, including food chains and water pollution <p>Skills</p> <ul style="list-style-type: none"> Know how to compare animals in familiar habitats with those found in the ocean, using images and sorting rings Know how to construct a simple food chain that includes humans (e.g. plants, fish, humans). Know how to carry out simple tests, using simple equipment such as pipettes and beakers to investigate water pollution 	<p>Knowledge</p> <ul style="list-style-type: none"> Know the names of basic parts of the human body Know that humans have five senses and the body parts associated with each Know that humans have offspring that grow into adults Know that humans have basic needs for survival (water, food and air) Know that exercise is important for humans to stay healthy Know that eating the right amounts of different types of food is important for humans to stay healthy (specific food group names don't need to be introduced here; they will be taught in KS2) Know that it is important for humans to have good hygiene by keeping ourselves clean Know that Louis Pasteur, a French scientist, shows that diseases could be prevented by killing or stopping germs <p>Skills</p> <ul style="list-style-type: none"> Know how to label the parts of a human body Know how to compare different textures, sounds and smells using their senses Know how to use observations and ideas to suggest answers to questions Know how to recognise the differences in our bodies after exercise Know how to talk about what they have found out
Vocab	<p>life processes, habitat, living conditions, suited, ocean, polar, coral reefs, food source, carnivore, herbivore, omnivore, shelter, protection, food chains, eaten by, water pollution</p>	<p>body, senses, touch, taste, smell, hear, see, skin, head, hair, mouth, teeth, nose, ear, eye, neck, shoulder, arm, elbow, hand, finger, chest, leg, knee, foot, toe, survival, fruit, vegetables, meat, bread, pasta, cheese (etc), exercise, hygiene, germs, clean</p>



Science Curriculum 2024/25 – Years 1 & 2

	Autumn 1	Autumn 2
Topic	<p>Everyday Materials</p> <p>Children will explore a wider variety of everyday materials and be able to name them. They will use key vocabulary to describe the simple physical properties of the materials. They will be able to distinguish between an object and the material from which it is made. Children will walk around school, identifying objects and materials, using the correct names and properties to describe them. They will group and compare materials in the classroom based on their properties. Children will perform simple tests to explore questions.</p>	<p>Seasonal Changes (Autumn and Winter)</p> <p>Children will build on their prior learning in EYFS by continuing to observe changes across the four seasons, focusing on Autumn and Winter. Across the term, they will observe and describe the weather associated with each season and how the day length varies. Children will learn through first-hand experience and stories.</p>
Knowledge	<p>Knowledge</p> <ul style="list-style-type: none"> Know the names a variety of everyday materials, including wood, plastic, glass, metal, water, and rock Know the names of objects and the materials from which they are made Know that everyday materials have simple physical properties <p>Skills</p> <ul style="list-style-type: none"> Know how to compare and group everyday materials on the basis of their simple physical properties Know how to identify and compare the suitability of a variety of everyday materials for particular uses, including wood, metal, plastic, glass, brick, rock, paper and cardboard Know how to explore, name, discuss and raise and answer questions about everyday materials so that they become familiar with the names of materials and properties Know how to explore and experiment with a wider variety of materials, including for example: brick, paper, fabrics, elastic, foil. Know how to perform simple tests to explore questions, for example: 'What is the best material for an umbrella? ... for lining a dog basket? ... for curtains? ... for a bookshelf? ... for a gymnast's leotard?' 	<p>Knowledge</p> <ul style="list-style-type: none"> Know the cycle of the four seasons: Autumn, Winter, Spring, Summer Know that Autumn takes place in September, October and November. Know that there is usually more wind, rain and frost in Autumn and that humans will start wearing coats Know that there is a lot of change in Autumn to get ready for the winter: farmers get ready for harvest; the leaves will start to change colour and fall off the trees; animals get ready for their long sleep over winter, whilst others collect and store food for the colder months; birds migrate to warmer countries Know that the days are getting shorter in Autumn and Winter and there is less sunlight, meaning it gets darker and cooler, and the nights get longer Know that Winter takes place in December, January and February Know that winter is the coldest month and that frost can appear; water can freeze; and snow might fall <p><i>(NOTE: Plants bulbs here, ready for Spring)</i></p> <p>Skills</p> <ul style="list-style-type: none"> Know how to observe the weather in Autumn and Winter Know how to describe and compare the weather across the seasons Know how to work scientifically by making tables and charts about the weather
Vocab	wood, rock, glass, plastic, metal, water, brick, paper, cardboard, fabrics, elastic, foil, hard, soft, stretchy, stiff, shiny, dull, rough, smooth, bendy, not bendy, waterproof, absorbent, opaque, transparent	seasons, months, Autumn, Spring, Winter, Summer, day length, sunlight, weather, wind, rain, frost, snow, cold, frozen, ice, harvest, hibernation, migration, hedgehogs, dormice, bats, squirrels, birds



Science Curriculum 2024/25 – Years 1 & 2

	Spring 1	Spring 2
Topic	<p>Living Things and their Habitats (Britain – familiar habitats)</p> <p>In this unit, the children will focus on plants and animals that live in Britain in familiar habitats to themselves. Children will use their local environment to explore and compare the differences between things that are living, dead or have never been alive. They will find out about the living conditions, that habitats in Britain provide, and how this affects the number and type of animals that live there. Children will learn that plants and animals depend on each other, using the idea of a simple food chain.</p>	<p>Living Things and their Habitats (Britain – less familiar habitats)</p> <p>Children will focus on plants and animals that live in Britain in less familiar habitats. They will find out about the living conditions, that habitats in Britain provide, and how this affects the number and type of animals that live there; they will compare how these are different to habitats already studied. Children will learn that plants and animals depend on each other, using the idea of a simple food chain, and they will learn about the famous scientist: David Attenborough.</p>
Knowledge	<p>Knowledge</p> <ul style="list-style-type: none"> • Know that some living things are living, dead or they have never been alive • Know that some living things are suited to living in habitats in Britain, such as: gardens, parks, including their school grounds • Know the names of a variety of plants and animals in these habitats • Know that habitats in Britain provide for the basic needs of different kinds of living things and that the conditions affect the number and type of animals that live there • Know how plants and animals depend on each other in these habitats (for example, food sources and shelter for protection) • Know that animals obtain their food from plants and other animals <p><i>(NOTE: Refer back to Seasonal Changes, focusing on winter)</i></p> <p>Skills</p> <ul style="list-style-type: none"> • Know how to sort and classify things according to whether they are living, dead or were never alive and record their findings using charts • Know how to raise and answer questions about the local environment that help them to identify and study a variety of plants and animals within their habitat and observe how living things depend on each other • Know how to construct a simple food chain (e.g. leaf, worm, bird), and identify and name different sources of food 	<p>Knowledge</p> <ul style="list-style-type: none"> • Know that some living things are suited to living in habitats in Britain, such as: woodland, coastland and moorland • Know the names of a variety of plants and animals in these habitats • Know that habitats in Britain provide for the basic needs of different kinds of living things and that the conditions affect the number and type of animals that live there • Know how plants and animals depend on each other in these habitats (for example, food sources and shelter for protection) • Know that animals obtain their food from plants and other animals • Know that David Attenborough is a scientist, who studies living things in Britain <p>Skills</p> <ul style="list-style-type: none"> • Know how to raise and answer questions that help them learn about plants and animals in less familiar habitats • Know how to compare animals in familiar habitats (gardens and parks) with animals found in less familiar habitats, for example, on the seashore, in woodlands, coastlands and moorlands, using images and sorting rings • Know how to construct a simple food chain (e.g. grass, hare, fox), and identify and name different sources of food
Vocab	<p>habitat, living, dead, alive, living conditions, suited, Britain, gardens, parks, food source, shelter, protection, food chains, eaten by</p>	<p>habitat, living conditions, suited, Britain, woodland, coastland, moorland, food source, shelter, protection, food chains, eaten by</p>



Science Curriculum 2024/25 – Years 1 & 2

	Summer 1	Summer 2
Topic	<p>Seasonal Changes (Spring) Children will learn about the season, Spring and the changes within this season.</p> <p>Plants Children will learn how seeds and bulbs grow into mature plants and that plants need water, light and a suitable temperature to grow. They will observe and describe the growth of plants in their local environment, beginning to learn the names of plants they find. Children will explore what plants have available to them. Children will learn about seeds – what they are, what they do and what they need. They will investigate what will happen if seeds are left in different environments to grow.</p>	<p>Seasonal Changes (Summer) Children will learn about the season, Summer and the changes within this season.</p> <p>Living Things and their habitats (Microhabitats in Britain) In this unit, children will learn about living things in microhabitats in Britain. Children will learn about microhabitats in their local environment and on a school trip to Fairburn Ings.</p>
Knowledge	<p>Knowledge</p> <ul style="list-style-type: none"> Know the cycle of the four seasons: Autumn, Winter, Spring, Summer Know that Spring takes place in March, April and May Know that and everything starts to come alive again: fresh buds grow on trees; lambs bounce happily around the fields; chicks hatch; frogspawn appears in the school wildlife garden; beautiful yellow daffodils appear everywhere; and some sleepy animals, like hedgehogs and bumblebees, wake up from their long hibernation Know that in Spring the days begin to get longer and warmer and the nights get shorter Know that the weather in Spring can be mixed and it might include sun, wind and rain Know that in some parts of the world rain falls for hours on end during Spring, which helps the plant life to grow <p>Skills</p> <ul style="list-style-type: none"> Know how to observe the weather in Spring Know how to describe and compare the weather across the seasons Know how to work scientifically by making tables and charts about the weather <p>Knowledge</p> <ul style="list-style-type: none"> Know that seeds and bulbs grow into mature plants. Know that plants need water, light and a suitable temperature to grow and stay healthy <p><i>Note: seeds and bulbs need water to grow but most do not need light; seeds and bulbs have a store of food inside them</i></p> <p>Skills</p> <ul style="list-style-type: none"> Know how to describe how seeds and bulbs grow into mature plants, observing different stages of growth 	<p>Knowledge</p> <ul style="list-style-type: none"> Know the cycle of the four seasons: Autumn, Winter, Spring, Summer Know that Summer takes place in June, July and August Know that the sun is high in the sky and shadows are likely to be seen Know that by this time of year everything is in full bloom Know that in Summer there are more hours of sun light so days are longer, the nights are shorter and it is the warmest season Know that the weather in Summer can be mixed and it might include sun and rain, but usually less than other seasons; it can be very warm and dry Know that humans shouldn't look directly at the sun, even when wearing dark glasses Know about keeping safe in the sun by wearing sun cream, a sun hat, sun glasses and by seeking shade Know about keeping our bodies hydrated by drinking plenty of water when it is hot <p>Skills</p> <ul style="list-style-type: none"> Know how to observe the weather in Summer Know how to describe and compare the weather across the seasons Know how to work scientifically by making tables and charts about the weather <p>Knowledge</p> <ul style="list-style-type: none"> Know that a microhabitat is a very small habitat, for example for woodlice under stones, logs, leaf litter Know the names a variety of plants and animals in microhabitats Know that microhabitats provide for the basic needs of different kinds of living things and that the conditions affect the number and type of animals that live there <p>Skills</p> <ul style="list-style-type: none"> Know how to raise and answer questions about the microhabitats that help them to identify and study a variety of plants and animals within them



	<ul style="list-style-type: none"> • Know how to observe plants growing in their local environment • Know how to observe and record, with some accuracy, the growth of a variety of plants as they change over time from a seed or bulb • Know how to set up a simple comparative test to show that plants need light and water to stay healthy 	<ul style="list-style-type: none"> • Know how to observe how the conditions in microhabitats affect the number and type of animals that live there
Vocab	seeds, bulbs, mature plants, water, light, temperature, observe, growth	seasons, months, Autumn, Spring, Winter, Summer, day length, weather, warmest, shadows, sun, rain, sun glasses, sun hat, sun cream, shade, hydrated, water microhabitat, stones, logs, leaf litter, lawn, pond, tree, living conditions, light, temperature, moisture

