

Science Curriculum 2023/24 – Years 1 & 2

| | Autumn 1 | Autumn 2 |
|-----------|---|--|
| Topic | <p>Animals</p> <p>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</p> <p>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 and 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 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 | habitat, grassland, desert, mountain, living conditions, survival, food source, shelter, protection | 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 |



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 that some living things are suited to live in the ocean 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 | life processes, habitat, living conditions, suited, ocean, coral reefs, food source, protection, food chains, water pollution | body, senses, touch, taste, smell, hear, see, skin, head, hair, mouth, teeth, nose, ears, eyes, neck, shoulders, arms, elbows, fingers, chest, legs, knees, feet, toes, survival, fruit, vegetables, meat, bread, pasta, cheese (etc), exercise, hygiene, germs, clean |



Science Curriculum 2024/25 – Years 1 & 2

| | Autumn 1 | Autumn 2 |
|------------------|---------------------------|---|
| Topic | <i>Everyday Materials</i> | <i>Seasonal Changes (Autumn and Winter)</i> |
| Knowledge Skills | <i>Knowledge Skills</i> | <i>Knowledge Skills</i> <ul style="list-style-type: none">• |
| Vocab | | |



Science Curriculum 2024/25 – Years 1 & 2

| | Spring 1 | Spring 2 |
|------------------|---|---|
| Topic | <i>Living Things and their Habitats (Britain)</i> | <i>Seasonal Changes (Spring and Summer)</i> |
| Knowledge Skills | Knowledge Skills | Knowledge Skills <ul style="list-style-type: none"> • |
| Vocab | | |



Science Curriculum 2024/25 – Years 1 & 2

| | Summer 1 | Summer 2 |
|---------------------|-----------------------------------|---|
| Topic | <i>Plants</i> | <i>Living Things and their Habitats (Microhabitats in Britain)</i> |
| Knowledge Skills | Knowledge Skills | Knowledge Skills <ul style="list-style-type: none"> • |
| Vocab | | |



| | Spring 1 | Spring 2 |
|-----------|---|--|
| Topic | Living Things and their Habitats Children will learn about living, dead and things that have never been alive, habitats, and how animals obtain their food from other plants and animals. Children will work scientifically by sorting, classifying and asking questions. | Seasonal Changes Children will learn about Winter and Spring and the changes between the seasons. |
| Knowledge | Knowledge <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 that most living things live in habitats to which they are suited. Know different habitats, including less familiar habitats, such as seashore, woodland, ocean and rainforest. Know how different habitats provide the basic needs of different kinds of animals and plants. Skills <ul style="list-style-type: none"> Know and explore what living things, dead things and things that have never been alive are; and compare them. Know how to work scientifically by sorting and classifying according to whether they are living, dead or never live. Know how to record their findings using charts. Know how to describe the conditions in different habitats, e.g. under logs on stony paths, under bushes Know how to identify and name a variety of plants in their habitats. Know how to identify and name a variety of animals in their habitats. Know how to describe how animals obtain their food from plants and other animals, using a simple food chain. Know how to construct a simple food chain, e.g. grass, cow, human. Know how to identify and name different sources of food. | Knowledge <ul style="list-style-type: none"> Know that Winter comes after Autumn and before Spring in the cycle of the seasons. Know that Winter takes places in December, January and February. Know that the days are shorter in Winter and there is less sunlight, meaning it gets colder. Know that Spring is between Winter and Summer in the cycle of the seasons. Know that the Spring months are March, April and May. Know that days start to get longer during the Spring, and there is sunlight for longer. Know that Spring brings warmer temperatures. Know that in some parts of the world rain falls for hours on end during Spring, which helps the plant life to grow. Skills <ul style="list-style-type: none"> Know how to observe the weather in Winter. Know how to describe the weather in Winter. Know how to work scientifically by making tables and charts about the weather. Know how to observe the weather in Spring. Know how to describe the weather in Spring. Know how to describe the changes between Winter and Spring. |
| Vocab | living, dead, never been alive, habitat, natural environment, woodland, coastal, food chain, microhabitat, food source. | seasons, months, Autumn, Spring, Winter, Summer, day length, weather, hail, sleet, snow, frost, cold, freezing, ice, warmer |



Science Curriculum 2024/25 – Years 1 & 2

| | Summer 1 | Summer 2 |
|-----------|---|---|
| Topic | Plants Children will learn how seeds and bulbs grow into mature plants and that plants need water, light and a suitable temperature to grow. | Living Things and their Microhabitats Children will learn about living things and microhabitats. Seasonal Changes Children will learn about Summer and the changes between the seasons. |
| Knowledge | Knowledge <ul style="list-style-type: none"> Know that plants need water, light and a suitable temperature to grow and stay healthy. Know that plants germinate for growth and survival. Know that seeds and bulbs need water to grow, but most do not need light as they have a store of food inside them. Skills <ul style="list-style-type: none"> Know how to observe how seeds and bulbs grow into mature plants. Know how to describe how seeds and bulbs grow into mature plants. Know how to observe plants growing in their local environment throughout the year. Know how to work scientifically by observing and recording, with some accuracy the growth of a variety of plants as they change over time from a seed or bulb. Know how to work scientifically by observing similar plants at different stages of growth. Know how to work scientifically by setting up a comparative test to show that plants need light and water to stay healthy. | Knowledge <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 that Summer comes after Spring and before Winter. Know that Summer takes place in June, July and August. Know that the days are shorter in Winter and there is less sunlight, meaning it gets colder. Know that there are more hours of sunlight in Summer. Know that it gets lighter in the morning and darker in the evening. Know that the sun is higher in the sky so more shadows are likely to be seen. Know that in Summer the weather is usually warmer and sometimes very hot. Know that in Summer there is usually less rain than other times in the year. Know about keeping safe in the sun. Know about keeping our eyes safe in the sun by not looking directly at the sun. Know about keeping our bodies hydrated by drinking plenty of water when we get too hot. Skills <ul style="list-style-type: none"> Know how to identify a variety of animals within their microhabitat (Field Trip). Know how to observe animals in their microhabitat. (Field Trip) Know how to raise and answer questions about the local environment. (Field Trip) Know how to observe the weather in Summer. Know how to describe the weather in Summer. Know how to work scientifically by making tables and charts about the weather. |
| Vocab | seeds, bulbs, mature plants, water, light, temperature, observe, germinate, growth. | seasons, months, Autumn, Spring, Winter, Summer, day length, weather, hail, sleet, snow, frost, cold, freezing, ice, warmer |

