



**Science Curriculum Year A-National Curriculum References:**

Term	Unit	National Curriculum Content
Autumn 1	Weather	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>observe changes across the four seasons</li> <li>observe and describe weather associated with the seasons and how day length varies.</li> </ul> <p>Pupils will use the local environment throughout the year</p> <ul style="list-style-type: none"> <li>to explore and answer questions about animals in their habitat.</li> <li>They will understand how to take care of animals taken from their local environment and the need to return them safely after study</li> </ul> <p>Pupils will observe and talk about changes in the weather and the seasons. Pupils will work scientifically by: making tables and charts about the weather; and making displays of what happens in the world around them, including day length, as the seasons change.</p> <p>This will be taught in conjunction with the geography Year 1 Curriculum:</p> <p><b>Human and Physical Geography:</b> Identify seasonal and daily weather patterns in the United Kingdom.</p> <p><b>Use basic geographical vocabulary to refer to:</b> vegetation, season and weather</p>
Autumn 2	Seasons: Autumn and Winter	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>observe changes across the four seasons</li> <li>observe and describe weather associated with the seasons and how day length varies.</li> </ul> <p>Pupils will use the local environment throughout the year</p> <ul style="list-style-type: none"> <li>to explore and answer questions about animals in their habitat.</li> <li>They will understand how to take care of animals taken from their local environment and the need to return them safely after study</li> </ul> <p>Pupils will observe and talk about changes in the weather and the seasons. Pupils will work scientifically by: making tables and charts about the weather; and making displays of what happens in the world around them, including day length, as the seasons change.</p> <p>This will be taught in conjunction with the geography Year 1 Curriculum:</p> <p><b>Human and Physical Geography:</b> Identify seasonal and daily weather patterns in the United Kingdom.</p> <p><b>Use basic geographical vocabulary to refer to:</b> vegetation, season and weather</p>

<p><b>Spring 1</b></p>	<p><b>Animals</b></p>	<p>Pupils will be taught to:</p> <ul style="list-style-type: none"> <li>• identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals</li> <li>• identify and name a variety of common animals that are carnivores, herbivores and omnivores</li> <li>• describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets)</li> </ul> <p>Pupils will use the local environment throughout the year to explore and answer questions about animals in their habitat. [see continuous provision]. They will understand how to take care of animals taken from their local environment and the need to return them safely after study. Pupils will become familiar with the common names of some fish, amphibians, reptiles, birds and mammals, including those that are kept as pets. Pupils will work scientifically by: using their observations to compare and contrast animals at first hand or through videos and photographs, describing how they identify and group them; grouping animals according to what they eat.</p>
<p><b>Spring 2</b></p>	<p><b>Seasons: Spring and Summer</b></p>	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• observe changes across the four seasons</li> <li>• observe and describe weather associated with the seasons and how day length varies.</li> </ul> <p>Pupils will use the local environment throughout the year</p> <ul style="list-style-type: none"> <li>• to explore and answer questions about animals in their habitat.</li> <li>• They will understand how to take care of animals taken from their local environment and the need to return them safely after study</li> </ul> <p>Pupils will observe and talk about changes in the weather and the seasons. Pupils will work scientifically by: making tables and charts about the weather; and making displays of what happens in the world around them, including day length, as the seasons change. This will be taught in conjunction with the geography Year 1 Curriculum:</p> <p><b>Human and Physical Geography:</b> Identify seasonal and daily weather patterns in the United Kingdom.</p> <p><b>Use basic geographical vocabulary to refer to:</b> vegetation, season and weather</p>
<p><b>Summer 1</b></p>	<p><b>Plants Part 1: Identification and Structure</b></p>	<p>Pupils will be taught to</p> <ul style="list-style-type: none"> <li>• identify and name a variety of common wild and garden plants, including deciduous and evergreen trees</li> <li>• identify and describe the basic structure of a variety of common flowering plants, including trees.</li> </ul> <p>Pupils will use the local environment throughout the year to explore and answer questions about plants growing in their habitat. Where possible, they will observe the growth of flowers and vegetables that they have planted. They will become familiar with common names of flowers, examples of deciduous and evergreen trees, and plant structures (including leaves, flowers (blossom), petals, fruit, roots, bulb, seed, trunk, branches, stem). Pupils will work scientifically by: observing closely, using magnifying glasses, and comparing and contrasting familiar plants; describing how they were able to identify and group them, and drawing diagrams showing the parts of different plants including trees. Pupils will keep records of how plants have changed over time, for example the leaves falling off trees and buds opening; and compare and contrast what they have found out about different plants.</p>

<b>Summer 2</b>	<b>Plants Part 2: conditions for growth, survival and germination.</b>	<p>Pupils will be taught to:</p> <ul style="list-style-type: none"><li>• observe and describe how seeds and bulbs grow into mature plants</li><li>• find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.</li></ul> <p>Pupils will use the local environment throughout the year to observe how different plants grow. Pupils should be introduced to the requirements of plants for germination, growth and survival, as well as to the processes of reproduction and growth in plants.</p> <p><b>Note:</b> Seeds and bulbs need water to grow but most do not need light; seeds and bulbs have a store of food inside them.</p> <p>Pupils will 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, or observing similar plants at different stages of growth; setting up a comparative test to show that plants need light and water to stay healthy.</p>
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**Science Curriculum Year B. National Curriculum References:**

Term	Unit	National Curriculum
<b>Autumn 1</b>	<b>Humans: Body parts, senses, growth</b>	<p>Pupils will be taught to</p> <ul style="list-style-type: none"> <li>• identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.</li> </ul> <p>Pupils will have plenty of opportunities to learn the names of the main body parts (including head, neck, arms, elbows, legs, knees, face, ears, eyes, hair, mouth, teeth) through games, actions, songs and rhymes. Pupils will use their senses to compare different textures, sounds and smells.</p> <p>Pupils will be taught to</p> <ul style="list-style-type: none"> <li>• notice that animals, including humans, have offspring which grow into adults</li> <li>• find out about and describe the basic needs of animals, including humans, for survival (water, food and air)</li> </ul> <p>They will also be introduced to the processes of reproduction and growth in animals. The focus at this stage will be on questions that help pupils to recognise growth; they will not be expected to understand how reproduction occurs. The following examples might be used: egg, chick, chicken; egg, caterpillar, pupa, butterfly; frogspawn, tadpole, frog; lamb, sheep. Growing into adults will include reference to baby, toddler, child, teenager, adult.</p> <p>Pupils will work scientifically by: observing, through video or first-hand observation and measurement, how different animals, including humans, grow; asking questions about what things animals need for survival and suggesting ways to find answers to their questions.</p>
<b>Autumn 2</b>	<b>Humans: exercise, nutrition, hygiene.</b>	<p>Pupils will be taught to:</p> <ul style="list-style-type: none"> <li>• describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.</li> </ul> <p>Pupils will be introduced to the basic needs of animals for survival, as well as the importance of exercise and nutrition for humans.</p> <p>Pupils will work scientifically by: observing, through video or first-hand observation and measurement, asking questions about what humans need to stay healthy; and suggesting ways to find answers to their questions.</p>
<b>Spring 1</b>	<b>Every Day Materials</b>	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• distinguish between an object and the material from which it is made</li> <li>• identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock</li> <li>• describe the simple physical properties of a variety of everyday materials</li> <li>• compare and group together a variety of everyday materials on the basis of their simple physical properties.</li> </ul> <p>Pupils will explore, name, discuss and raise and answer questions about everyday materials so that they become familiar with the names of materials and properties such as: hard/soft; stretchy/stiff; shiny/dull; rough/smooth; bendy/not bendy; waterproof/not waterproof; absorbent/not absorbent; opaque/transparent. Pupils will explore and experiment with a wide variety of materials, not only those listed in the programme of study, but including for example: brick, paper, fabrics, elastic, foil. Pupils will work scientifically by: performing 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>

<b>Spring 2</b>	<b>Using Materials</b>	<p>Pupils will be taught to:</p> <ul style="list-style-type: none"> <li>• identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses</li> <li>• find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</li> </ul> <p>Pupils will identify and discuss the uses of different everyday materials so that they become familiar with how some materials are used for more than one thing (metal can be used for coins, cans, cars and table legs; wood can be used for matches, floors, and telegraph poles) or different materials are used for the same thing (spoons can be made from plastic, wood, metal, but not normally from glass). They should think about the properties of materials that make them suitable or unsuitable for particular purposes and they should be encouraged to think about unusual and creative uses for everyday materials. Pupils will find out about people who have developed useful new materials, for example John Dunlop, Charles Macintosh or John McAdam. Pupils will work scientifically by: comparing the uses of everyday materials and around the school with materials found in other places (at home, the journey to school, on visits, and in stories, rhymes and songs); observing closely, identifying and classifying the uses of different materials, and recording their observations.</p>
<b>Summer 1</b>	<b>Living Things and their Habitats</b>	<ul style="list-style-type: none"> <li>• explore and compare the differences between things that are living, dead, and things that have never been alive</li> <li>• 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</li> <li>• identify and name a variety of plants and animals in their habitats, including micro-habitats</li> <li>• 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.</li> </ul> <p>Pupils will be introduced to the idea that all living things have certain characteristics that are essential for keeping them alive and healthy. They will raise and answer questions that help them to become familiar with the life processes that are common to all living things. Pupils will be introduced to the terms 'habitat' (a natural environment or home of a variety of plants and animals) and 'micro-habitat' (a very small habitat, for example for woodlice under stones, logs or leaf litter). They will 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, for example, plants serving as a source of food and shelter for animals. Pupils will compare animals in familiar habitats with animals found in less familiar habitats, for example, on the seashore, in woodland, in the ocean, in the rainforest.</p> <p>Pupils will work scientifically by: sorting and classifying things according to whether they are living, dead or were never alive, and recording their findings using charts. They will describe how they decided where to place things, exploring questions for example: 'Is a flame alive? Is a deciduous tree dead in winter?' and talk about ways of answering their questions. They will construct a simple food chain that includes humans (e.g. grass, cow, human). They will describe the conditions in different habitats and micro-habitats (under log, on stony path, under bushes) and find out how the conditions affect the number and type(s) of plants and animals that live there.</p>
<b>Summer 2</b>	<b>The Environment</b>	<p>To observe closely, using simple equipment</p> <p>To use their observations and ideas to suggest answers to questions</p> <p>To gather and record data to help in answering questions by taking surveys.</p> <p>To ask simple questions and recognise that they can be answered in different ways</p> <p>To identify and classify into animal classification groups.</p> <p>To perform simple tests</p> <p>To observe closely, using simple equipment</p>

