

**KS1 Cycle 2 – To be taught throughout the year.**

**Builds on EYFS**

- Know changes across the 4 seasons
- Know and observe and describe weather associated with the seasons and how day length varies

| Types of Knowledge                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Disciplinary Knowledge                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Substantive Knowledge                                                                                                                                                 | Vocabulary                                                       | Experience                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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| Will study...                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Working scientifically – knowledge of how scientific knowledge is generated and grows.                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | The scientific knowledge and conceptual understanding – the concepts, laws, theories and models.                                                                      |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <p>A SCIENTIST studying <b>Physics</b>.</p> <p><b>Seasonal Changes (tree study)</b></p>  <p>Physical World and Space</p>  <p>Questions</p>  <p>Methods and Measurements</p>  <p>Data Analysis</p>  <p>Explanations</p> | <p><b>will understand ...</b></p> <p>Ask simple questions and recognise that they can be answered in different ways including use of scientific language from the national curriculum.</p> <p>Communicate my ideas, what I can do and what I can find out in different ways.</p> <p>Use simple equipment to observe closely including changes over time.</p> <p>Ask my own questions about what I notice.</p> <p>Use hand lenses and egg timers.</p> <p>Gather and record data to help in answering questions including from secondary sources of information.</p> | <p><b>will know ...</b></p> <p>Observe changes across the four seasons.</p> <p>Observe and describe weather associated with the seasons and how it effects trees.</p> | <p>seasons, winter, spring, summer, daylight, length, trees.</p> | <p>Observe changes in the four seasons. Observe how daylight varies dependent on the season. How trees change dependent on the season.</p> <p>Signs of autumn. To observe the changes across the four seasons by monitoring the trees in the playground. Observe and make tables and charts about weather; and making displays of what happens in the world around them, including day length, as the seasons change.</p> <p>To observe the changes across the four seasons by monitoring the trees in the playground.</p> <p>Signs of spring. Observe and make tables and charts about weather; and making displays of what happens in the world around them, including day length, as the seasons change.</p> <p>Signs of summer. To observe the changes across the four seasons by monitoring the trees in the playground. Observe and make tables and charts about weather; and making displays of</p> |

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|  |  |  |  | what happens in the world around them, including day length, as the seasons change. |
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## KS1 Cycle 2 – Autumn 1/Autumn 2

### Builds on EYFS.

- Know that different animals have different body parts (some have no legs, some have lots).
- Know that different animals like different foods and live in different places.
- Know that some animals are big and some animals are small.
- Know that butterflies do not start out looking like butterflies (undergo metamorphosis).
- Know how to talk about different places an animals might live.
- Know that some animals hibernate.
- Know that some animals are adapted to live under the sea and that humans are adapted to live on land.
- Know that if I wash my hands then that will kill off germs.
- Know about the importance of a healthy diet.
- Know I cannot eat unhealthy foods like chips and pizza everyday and I need a variety of food.
- Know about the importance of a healthy exercise regime.
- Know that exercise is good for my body.

| Types of Knowledge<br>Will study...                                                                                                                                                                                                                                                                                                                                                                                            | Disciplinary Knowledge<br>Working scientifically – knowledge of how scientific knowledge is generated and grows.                                                                                                                                                                                                                                                 | Substantive Knowledge<br>The scientific knowledge and conceptual understanding – the concepts, laws, theories and models.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Vocabulary                                                                                                                                                                                           | Experience                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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| <p>A SCIENTIST studying <b>Biology</b></p> <p><b>Animals including Humans, Year 1.</b></p>  <p>Living Organisms</p>  <p>Questions</p>  <p>Methods and Measurements</p> | <p><b>I can</b></p> <p>I can ask simple questions and recognise that they can be answered in different ways including use of scientific language from the national curriculum.</p> <p>I can communicate my ideas, what I can do and what I can find out in different ways.</p> <p>I can use simple equipment to observe closely including changes over time.</p> | <p><b>I know</b></p> <p>I know the names of a variety of common animals including fish, amphibians, reptiles, birds and mammals</p> <p>I know that different animals have different features that I can see (number of legs / fur / skin / scales / wings etc)</p> <p>I know how to describe and compare the structure of common animals (fish, amphibians, reptiles, birds and mammals including pets)</p> <p>I know the names of groups of common animals (including fish, amphibians, reptiles, mammals and birds.)</p> <p>I know how to identify if an animal belongs to a specific group by looking at their features.</p> | <p>Fish, amphibians, reptiles, mammals, birds, carnivores, herbivores, omnivores, smell, taste, touch, see, hear, head, neck, arms, elbows, legs, knees, face, ears, eyes, hair, mouth and teeth</p> | <p>Explore feature of different animals groups.</p> <p>Group animals according to their structure and features including, fish, amphibians, reptiles, mammals, and birds.</p> <p>Label body parts of animals.</p> <p>Identify and group animals according to what they eat including carnivores, herbivores and omnivores.</p> <p>Identify and name parts of the human body.</p> <p>Labelling body parts of humans.</p> <p>Match body parts to senses.</p> <p>Investigate all five senses</p> |

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|   | <p>I can ask my own questions about what I notice.</p> <p>I can gather and record data to help in answering questions including from secondary sources of information.</p> | <p>I know how to group animals according to what they eat.</p> <p>I know the names a variety of common animals that are carnivores, herbivores and omnivores.</p> <p>I know the names of and can locate parts of the human body, including those related to the senses.</p> <p>I know how to draw and label parts of the human body, including those related to the senses.</p> <p>I know the names of the 5 senses and which part of the body is associated with it.</p> |  |  |
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## KS1 Cycle 2 – Spring 1

### Builds on EYFS

- Know That the world is made up of different animals, plants and materials
- Know that some things are living and others are non- living;
- Know how to plant seeds and look after living plants to help them grow;
- Know that animals change as they grow and have life cycles;

| Types of Knowledge<br><br>Will study...                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Disciplinary Knowledge<br><br>Working scientifically – knowledge of how scientific knowledge is generated and grows.                                                                                                                                                                                                                                                                                                                                                                                                                        | Substantive Knowledge<br><br>The scientific knowledge and conceptual understanding – the concepts, laws, theories and models.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Vocabulary                                                                                                                                                                                                                                                      | Experience                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| <p>A SCIENTIST studying <b>Biology</b>.</p> <p><b>Living Things and their Habitats</b></p> <p><b>UK HABITATS</b></p>      | <p><b>I can</b></p> <p>I can ask simple questions and recognise that they can be answered in different ways including use of scientific language from the national curriculum.</p> <p>I can communicate my ideas, what I can do and what I can find out in different ways.</p> <p>I can use simple equipment to observe closely including changes over time.</p> <p>I can ask my own questions about what I notice.</p> <p>I can gather and record data to help in answering questions including from secondary sources of information.</p> | <p><b>I know</b></p> <p>I know how to identify whether things are alive, dead or have never lived.</p> <p>I know how to explore and compare the differences between things that are living, dead, and things that have never been alive.</p> <p>I know all animals need water, air and food to survive.</p> <p>I know a habitat is a natural environment or home of a variety of plants or animals.</p> <p>I know a habitat is a place where living things, such as animals and plants, can find all the things they need to survive. This includes food, water, air, space to move and grown and some shelter.</p> <p>I know that most living things live in habitats to which they are suited</p> <p>I know that different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other</p> <p>I know the names of different habitats that can be found in the UK. Eg forest, woods, rivers, gardens, towns, ponds etc</p> | <p>animals, plants, living, non-living, , mechanical, real, pretend, dead, alive, breath, survive</p> <p>habitat, microhabitat, minibeasts, environment, vegetation</p> <p>woodland, forest, pond, river, garden, town</p> <p>food chain<br/>source of food</p> | <p>Sort objects/photos of living and non-living things. e.g. real baby and a doll.</p> <p>Identify whether things are alive, dead or never lived.</p> <p>Explore and compare the differences between things that are living, dead, and things that have never been alive.</p> <p>Describe my habitat and how it helps me survive.</p> <p>What habitats are found in our local area?</p> <p>Do birds live in our gardens?</p> <p>Make bird feeders.</p> <p>Carry out a bird watch.</p> <p>Do habitats change overtime/due to weather conditions?</p> |

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|  |  | <p>I know the names of some different plants and animals that live in different habitats in the UK and describe how they are suited to their different habitats (including micro-habitats)</p> <p>I know that you will find different types of animals and plants in different types of places and habitats.</p> <p>I know some <b>habitats</b> are large, like the ocean, and some are very small, such as under a log.</p> <p>I know that a micro-habitat is a very small habitat.</p> <p>I know that animals obtain their food from plants and other animals,</p> <p>I know some simple food chains of animals that live in UK habitats by identifying and naming different sources of food</p> |  |  |
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## KS1 Cycle 2 – Spring 2

### Builds on EYFS

- Know and understand the importance of oral hygiene and how to look after my body and own personal hygiene.

- Know that some things are living and others are non- living;
- Know how to plant seeds and look after living plants to help them grow;
- Know that animals change as they grow and have life cycles;

| Types of Knowledge                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Disciplinary Knowledge                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Substantive Knowledge                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Vocabulary                                                                                                                | Experience                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| Will study...                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Working scientifically – knowledge of how scientific knowledge is generated and grows.                                                                                                                                                                                                                                                                                                                                                                                                                                                      | The scientific knowledge and conceptual understanding – the concepts, laws, theories and models.                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <p>A SCIENTIST studying<br/><b>Biology</b></p> <p><b>Animals including Humans,<br/>Year 2.</b></p>  <p>Living Organisms</p>  <p>Questions</p>  <p>Methods and Measurements</p>  <p>Data Analysis</p>  <p>Explanations</p> | <p><b>I can</b></p> <p>I can ask simple questions and recognise that they can be answered in different ways including use of scientific language from the national curriculum.</p> <p>I can communicate my ideas, what I can do and what I can find out in different ways.</p> <p>I can use simple equipment to observe closely including changes over time.</p> <p>I can ask my own questions about what I notice.</p> <p>I can gather and record data to help in answering questions including from secondary sources of information.</p> | <p><b>I know</b></p> <p>How to describe the basic needs of animals for survival and the main changes as offspring from young animals, including humans, grow into adults.</p> <p>How to describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.</p> <p>How to describe the basic needs of animals, including humans, for survival (water, food and air).</p> <p>I know the life cycle is the series of changes that an animal or plant passes through from the beginning of its life until its death.</p> | <p>Adult<br/>Develop<br/>Life cycle<br/>Offspring<br/>Young<br/>Diet<br/>Exercise<br/>Germs<br/>Hygiene<br/>Nutrition</p> | <p>Identifying things our body helps us to do.</p> <p>Identifying specialists that help us to look after our body.</p> <p>What food do you need in a healthy diet and why?</p> <p>How can you stay healthy?</p> <p>Sort foods into food groups</p> <p>What is our classes favourite breakfast?</p> <p>What is the most active exercise?</p> <p>How much food and drink do I have in a day?</p> <p>Observe life cycles in real time or on films.<br/>Caterpillar/butterfly<br/>Frogspawn / frog<br/>Egg / chick</p> |

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|  |  |  |  | Sequencing the life cycles of different animals including humans. |
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## KS1 Cycle 2 – Summer 2

### Builds on EYFS

- Know that some things are living and others are non- living;
- Know how to plant seeds and look after living plants to help them grow;
- Know that animals change as they grow and have life cycles;
- Know that there are different natural environments around the world that have specific characteristics such as deserts, forests, islands, aquatic habitats

| Types of Knowledge<br><br>Will study...                                                                                                                                                                                                                                                                                                                                           | Disciplinary Knowledge<br><br>Working scientifically – knowledge of how scientific knowledge is generated and grows.                                                                                                                                                                                                                                                                                                                                                                       | Substantive Knowledge<br><br>The scientific knowledge and conceptual understanding – the concepts, laws, theories and models.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Vocabulary                                                                                                                                                                                                                                                      | Experience                                                                                                                                                                                                                                                                                                                                                                                                                            |
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| <p>A SCIENTIST studying <b>Biology</b></p> <p><b>Living Things and their Habitats</b></p> <p><b>WORLD HABITATS</b></p>    | <p><b>I can</b></p> <p>I can ask simple questions and recognise that they can be answered in different ways including use of scientific language from the national curriculum.</p> <p>I can communicate my ideas, what I can do and what I can find out in different ways.</p> <p>I can use simple equipment to observe closely including changes over time.</p> <p>I can ask my own questions about what I notice.</p> <p>I can gather and record data to help in answering questions</p> | <p><b>I know</b></p> <p>I know how to identify whether things are alive, dead or have never lived.</p> <p>I know how to explore and compare the differences between things that are living, dead, and things that have never been alive.</p> <p>I know all animals need water, air and food to survive.</p> <p>I know a habitat is a natural environment or home of a variety of plants or animals.</p> <p>I know a habitat is a place where living things, such as animals and plants, can find all the things they need to survive. This includes food, water, air, space to move and grown and some shelter.</p> <p>I know that most living things live in habitats to which they are suited</p> | <p>animals, plants, living, non-living, , mechanical, real, pretend, dead, alive, breath, survive</p> <p>habitat, microhabitat, minibests, environment, vegetation</p> <p>desert, ocean, grasslands, artic, rainforest</p> <p>food chain<br/>source of food</p> | <p>Sort objects/photos of living and non-living things. e.g. real baby and a doll.</p> <p>Identify whether things are alive, dead or never lived.</p> <p>Explore and compare the differences between things that are living, dead, and things that have never been alive.</p> <p>Describe my habitat and how it helps me survive.</p> <p>What habitats are found around the world?</p> <p>Sort animals into their world habitats.</p> |

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|   | <p>including from secondary sources of information.</p> | <p>I know that different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other</p> <p>I know the names of different world habitats eg desert, ocean, grasslands, artic, rainforest</p> <p>I know the names of some different plants and animals that live in different habitats around the world and describe how they are suited to their different habitats</p> <p>I know that you will find different types of animals and plants in different types of places and habitats.</p> <p>I know some <b>habitats</b> are large, like the ocean, and some are very small, such as under a log.</p> <p>I know that a micro-habitat is a very small habitat.</p> <p>I know that animals obtain their food from plants and other animals,</p> <p>I know some simple food chains of animals that live in world habitats by identifying and naming different sources of food</p> |  | <p>Research the locations of different world habitats.</p> <p>Do habitats change overtime/due to weather conditions?</p> |
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