



KS1 Stoke Hill Federation Science Curriculum 2020

Intent: by the end of KS1 children will have acquired the knowledge and skills for this subject, as set out below.

Implementation: we have allocated subject content to year groups. Curriculum delivery is typically planned weekly, although learning can be episodic. **NOTE:** for how learning in the Early Years prefaces learning in this subject see the EYFS curriculum documents.

Impact: we know that we will have delivered the curriculum successfully if children show us a thirst for scientific knowledge and skills, are everyday curious and delighted to learn.

Working Scientifically* throughout the subject content:

- 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

Year 1 Programme of Study	Year 2 Programme of Study
<p>Plants</p> <ul style="list-style-type: none"> • identify and name a variety of common deciduous and evergreen trees • identify and describe the basic structure of trees • identify and describe the basic structure of a variety of common wild and flowering plants <p>Animals, including humans</p>	<p>Plants</p> <ul style="list-style-type: none"> • 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 <p>Animals including humans</p>

Tier 3 vocabulary - **bold underlined**

Tier 2 vocabulary - **bold**





<ul style="list-style-type: none"> • identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals • describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets) • identify and name a variety of common animals that are carnivores, herbivores and omnivores • Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense <p>Everyday Materials</p> <ul style="list-style-type: none"> • 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. <p>Seasonal Changes observation of seasonal changes also incorporated across the school year</p> <ul style="list-style-type: none"> • observe changes across the four seasons • observe and describe weather associated with the seasons and how day length varies. 	<ul style="list-style-type: none"> • 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 <p>Everyday Materials</p> <ul style="list-style-type: none"> • 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 <p>Living things and their habitats</p> <ul style="list-style-type: none"> • 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
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Year 1

Unit -Plants/Trees

Year 2

Unit –Plants

Vocabulary	Knowledge and Skills	Vocabulary	Knowledge and Skills
<p>blossom flowers on a tree</p> <p>bud a flower or leaf before it has opened</p> <p>leaf one of the flat green parts that grows on a plant</p> <p>roots the part of a plant that grows underground</p> <p>seed a tiny thing that a plant can grow from</p> <p>trunk a tree’s thick stem</p> <p>bark the hard covering around the trunk and branches of a tree</p> <p>deciduous sheds it leaves once a year</p> <p>evergreen a tree that has green leaves all through the year</p>	<p>explore the school environment to ask q’s about what is growing</p> <p>plant flowers and/or vegetables and observe their growth, keeping records over time</p> <p>name flowers (inc. daisy, rose, buttercup, dandelion, bluebell, snowdrop)</p> <p>name deciduous/non-deciduous trees (inc. oak, beech and willow)</p> <p>identify the structure of a plant</p>	<p>mature fully grown</p> <p>temperature how hot or cold something is</p> <p>bulb something that looks like an onion and is planted in the earth</p> <p>germinate to grow and develop</p> <p>reproduction to produce offspring or young</p> <p>compare to notice the similarity or dissimilarity between things</p>	<p>observe and describe how seeds and bulbs grow into mature plants</p> <p>find out and describe how plants need water, light and a suitable temperature to grow and stay healthy</p> <p>work scientifically by observing and recording, setting up a comparative test re light and water</p>

Unit -

Plants/flowers

Unit -

Living things and their Habitats

<p>stem the stalk of a plant arising above the ground</p> <p>petal one of the separate coloured parts of a flower</p>	<p>plant flowers and/or vegetables and observe their growth, keeping records over time</p> <p>Identify the structure of a plant</p>	<p>habitat the natural home or environment of an animal, plant</p> <p>micro-habitat a very small habitat</p>	<p>explore and compare the differences between things that are living, dead, and things that have never been alive</p>
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Tier 3 vocabulary - **bold underlined**

Tier 2 vocabulary - **bold**





	<p>compare and contrast different plants</p>	<p>characteristic typical of a particular person, place, or thing conditions the state of something, what its like there source where you can obtain (get) something <u>food chain</u> a series of organisms each dependent on another as a source of food</p>	<p>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 inc. less familiar habitats such as seashore, rainforest</p> <p>identify and name a variety of plants and animals in their habitats, including microhabitats</p> <p>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.</p>
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Unit -
Animals including Humans

Unit –
Animals, including Humans

<p>amphibian cold-blooded animal that lays eggs and can breathe underwater and on land bird any animal with feathers, wings and a beak</p>	<p>identify and name a range of common animals including fish, reptiles amphibians, birds and mammals</p>	<p><u>offspring</u> cold-blooded vertebrate animal adult an animal that is fully grown <u>survival</u> to carry on living after an accident or other event</p>	<p>notice that animals, including humans, have offspring which grow into adults</p> <p>find out about and describe the basic needs of animals, including</p>
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Tier 3 vocabulary - **bold underlined**
 Tier 2 vocabulary - **bold**





<p>fish any animal with scales and fins that lives and breathes in water <u>mammal</u> any animal that has hair and can feed its babies with its own milk <u>reptile</u> an animal with cold blood that lays eggs</p>	<p>compare and describe the structure of common animals including pets</p> <p>identify, name, draw and label the basic parts of the human body and say which part is associated with which sense</p>	<p><u>hygiene</u> habits that maintain health and prevent disease <u>nutrition</u> obtaining food necessary for health and growth</p>	<p>humans, for survival (water, food and air)</p> <p>describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene</p>
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Unit -

Animals including omnivores

<p><u>Carnivore</u> eats meat <u>Herbivore</u> eats plants <u>Omnivore</u> eats meat and plants</p>	<p>Work scientifically using their observations of animals to group, or to compare and contrast identify a variety of common animals that are carnivores, herbivores and omnivores</p> <p>learn to groups animals according to what they eat</p>		
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Unit -

Everyday Materials

<p>wood the trunk and branches of trees glass a hard substance you can see through, typically transparent plastic a synthetic man-made material</p>	<p>learn to distinguish an object from what it is made</p> <p>identify a range of everyday materials inc. wood, glass, plastic, metal, rock, water</p>	<p>Unit - <i>Use of Everyday Materials</i></p> <p>material the matter from which a thing is or can be mad suitable right or appropriate for a particular purpose, or situation solid not hollow or containing spaces or gap</p>	<p>identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses</p>
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Tier 3 vocabulary - **bold underlined**

Tier 2 vocabulary - **bold**





<p>metal a solid material which is typically hard, shiny</p> <p>rock the solid, heavy material forming part of the surface of the earth</p> <p>water colourless liquid that forms the seas, lakes, rivers, and rain</p>	<p>identify the physical properties of everyday materials</p> <p>compare and group materials on the basis of their physical properties</p>	<p>hollow having a hole or empty space inside</p> <p>squash crush or squeeze (something) with force so that it becomes flat, soft, or out of shape</p> <p>bend shape or force into a curve or angle</p> <p>twist form curling, or distorted shape</p> <p>stretch to make longer or wider without tearing or breaking.</p>	<p>become familiar with materials being used for more than one thing or differing materials used for the same thing (see examples in the non-statutory guidance in the National Curriculum doc)</p> <p>find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</p>
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Unit -
Seasonal Change and Weather

<p>season the four part of the year</p> <p><u>spring</u> (March to May) when plants begin to grow</p> <p><u>summer</u> (June to August) when it is sunny and warm and the days are long</p> <p><u>autumn</u> (September to November) when it gets cooler and the leaves begin to fall</p> <p><u>winter</u> (December to January) when it is cold and the days are short</p>	<p>observe and talk about changes across the 4 seasons with a focus on the season this unit is taught in</p> <p>observe and describe weather associated with the seasons and varying day length</p> <p>make tables and/or charts to show weather and what the seasons display in the world around them</p>		
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Tier 2 vocabulary - **bold**





Assessment in Science

Assessment information will be gathered through:

- diagnostic questioning and discussion,
- elicitation
- observation
- TAPS assessment outcomes

Evidence in children's own books, shared class books, the environment such as:

- annotated photos
- drawing
- quotes
- writing

Assessment of Attainment through:

- End of Project Assessment Tasks
(Medium Term Assessment Grids)

Assessment of Progress

- Objective tracking over time (Evidence Gathering Grids)

Source Documents:

National Curriculum 2014

Oxford Junior Dictionary (2002)

Oxford English Dictionary online www.lexico.com

*'Working Scientifically' SHINS Document 2019

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