

Cumwhinton School Curriculum - Science Y2 SPR

Year 2	NC Content	<p><u>Living things and their habitats</u></p> <p>Pupils should be taught to:</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. <p><u>Plants</u></p> <p>Pupils should be taught to:</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><u>Animals, including humans</u></p> <p>Pupils should be taught to:</p> <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><u>Uses of everyday materials</u></p> <p>Pupils should be taught to:</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.
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Mapping across the Year

	AUTUMN	SPRING	SUMMMER
Scientific Knowledge & Understanding	<p>Animals including humans 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> <p>Living Things & Their Habitats 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</p>	<p>Plants 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>	<p>Uses of everyday materials</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> <p>Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching</p>
Science Enquiry & Working Scientifically	<p>Identifying and classifying Asking simple questions and recognising that they can be answered in different ways</p> <p>Identifying and classifying</p>	<p>Identifying and classifying Observing closely, using simple equipment</p>	<p>Asking simple questions and recognising that they can be answered in different ways Performing simple tests Observing closely, using simple equipment Using their observations and ideas to suggest answers to questions Gathering and recording data to help in answering questions</p>
Uses & Implications of Science today and for the future	<p>Investigate washing hands, using glitter gel.</p> <p>Create a life cycle book for a younger child</p> <p>Show what they know about looking after an animal by creating a pet owners' guide.</p> <p>Can explain in simple terms why an animal or plant is suited to a habitat e.g. the caterpillar cannot live under the soil like a worm as it needs fresh leaves to eat; the seaweed we found on the beach cannot live in our pond because it is not salty</p>	<p>Research and plan when and how to plant a range of seeds and bulbs. Look after the plants as they grow - weeding, thinning, watering etc.</p>	<p>Make suggestions about alternative materials for a purpose that are both suitable and unsuitable Test the properties of materials for particular uses e.g. compare the stretchiness of fabrics to select the most appropriate for a superhero costume, test materials for waterproofness to select the most appropriate for a rain hat/umbrella, test the absorbency of different brands of baby's nappies as an investigation for a supermarket.</p>

CONCEPTUAL SCHOOL AMBITION DRIVERS

	EYFS & KS1	LKS2	UKS2
AUT	Diversity	Fairness	Individuality
SPR	Truth	Change	Resilience
SUM	Responsibility	Equality	Sustainability

INNOVATION - Truth

Scientific Knowledge & Understanding

Science Enquiry & Working Scientifically

Uses & Implications of Science today and for the future

	NC	CUMWHINTON CURRICULUM
<p>Finding out (Facts & knowledge)</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>Chn learn about the pollination of flowering plants by flying insects.</p> <p>Chn learn about the life cycle of a simple flowering plant -</p> <p>Germination = the development of a plant from seed.</p> <p>Growth - the process of increasing size.</p> <p>Flowering - the action of producing flowers.</p> <p>Seed production.</p> <p>They complete and label a diagram of a plant's life cycle and explain the four stages.</p> <p>Chn learn about the function of bulbs. They carry out an investigation into what bulbs need to start growing again.</p> <p>Chn learn about the four main parts of a plant - leaves, flower, stem and roots.</p> <p>Chn to learn that the roots anchor the plant in the soil and draw up water and nutrients.</p> <p>They learn that the stem supports the plant and allows water and nutrients to travel upward.</p> <p>They learn that the leaves of the plant help the plant to make its own food through photosynthesis.</p> <p>They learn that the flower allows the plant to reproduce through pollination and seed production.</p> <p>Chn label a diagram of a plant and describe the functions of its 4 main parts.</p>
<p>Using (Applying & analysing)</p>	<p>Identifying and classifying</p> <p>Observing closely, using simple equipment</p>	<p>Chn plant hyacinth bulbs and help them to grow by giving them soil, water and sunlight. Observe over a six-week period, children measure the height of the plant, sketch it and describe it.</p> <p>Chn to learn about germination. They carry out an investigation into what seeds need to germinate - Making predictions and observations.</p> <p>Chn investigate the needs of 4 different plants. They make predictions and observe the plants over a period of time.</p> <p>What do plants need to grow?</p> <p>What does the stem of a plant do?</p> <p>What does germination mean?</p> <p>How can seeds be dispersed?</p>
<p>Concluding (Evaluating & Summarising)</p>	<p>Research and plan when and how to plant a range of seeds and bulbs.</p> <p>Look after the plants as they grow - weeding, thinning, watering etc.</p>	<p>Using the results from the investigation above, ask pupils if they have enough evidence to answer the question: Does the orientation of a bulb when planted affect how well it grows? Share ideas then pupils write a conclusion using the sentence frames: We found out that ... We know this because ... If there is insufficient evidence, explain that scientists cannot always reach a conclusion.</p> <p>Comment critically on each other's findings using some set criteria. For example, clarity of information, accuracy of drawings / diagrams, use of appropriate scientific vocabulary, language appropriate for Year 2. Provide some time to edit and improve both the content and presentation of their work.</p>