

Cumwhinton School Curriculum - Science Y1 AUT

Year 1	NC Content	<p><u>Plants</u> Pupils should be taught to:</p> <ul style="list-style-type: none">-identify and name a variety of common wild and garden plants, including deciduous and evergreen trees-identify and describe the basic structure of a variety of common flowering plants, including trees <p><u>Animals Including humans</u> Pupils should be taught to:</p> <ul style="list-style-type: none">-identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals-identify and name a variety of common animals that are carnivores, herbivores and omnivores <p>describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets)</p> <ul style="list-style-type: none">-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><u>Everyday materials</u> Pupils should be taught to:</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><u>Seasonal Changes</u> Pupils should be taught to:</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.
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Mapping across the Year

	AUTUMN	SPRING	SUMMMER
Scientific Knowledge & Understanding	Seasonal Change x 2 sessions <u>Seasonal Change</u> Observe changes across the 4 seasons Observe and describe weather associated with the seasons and how day length varies Observations of the seasons and the weather will take place across the whole year, but the specific content & vocabulary teaching around day length, naming seasons etc. will take place here.	Seasonal Change x 2 sessions <u>Seasonal Change</u> Observe changes across the 4 seasons Observe and describe weather associated with the seasons and how day length varies Seasonal change - new season & how seasons affect plants	Seasonal Change x 2 sessions <u>Seasonal Change</u> Observe changes across the 4 seasons Observe and describe weather associated with the seasons and how day length varies Seasonal change - new season & how seasons affect animals' behaviour
	<u>Everyday materials</u> 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	<u>Plants</u> Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees Identify and describe the basic structure of a variety of common flowering plants, including trees	<u>Animals including Humans</u> Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals Identify and name a variety of common animals that are carnivores, herbivores and omnivores Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets) Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense
Science Enquiry & Working Scientifically	Asking simple questions and recognising that they can be answered in different ways Observing closely, using simple equipment Performing simple tests Gathering and recording data to help in answering questions	Identifying and classifying Observing closely, using simple equipment Asking simple questions and recognising that they can be answered in different ways Gathering and recording data to help in answering questions	Identifying and classifying Observing closely, using simple equipment Asking simple questions and recognising that they can be answered in different ways Gathering and recording data to help in answering questions
Uses & Implications of Science today and for the future	Demonstrate their knowledge in different ways e.g. making a weather forecast video, writing seasonal poetry, creating seasonal artwork Test the properties of objects e.g. absorbency of cloths, strength of party hats made of different papers, stiffness of paper plates, and waterproofness of shelters. They should work scientifically to explore the answers to questions such as: What is the best material for an umbrella? For lining a dog basket? For curtains? For a gymnast's leotard?	Demonstrate their knowledge in different ways e.g. making a weather forecast video, writing seasonal poetry, creating seasonal artwork Where possible, children should observe the growth of flowers and vegetables they have planted themselves.	Demonstrate their knowledge in different ways e.g. making a weather forecast video, writing seasonal poetry, creating seasonal artwork Look for patterns between people e.g. Do people with big hands have big feet? Investigate human senses e.g. Which part of my body is good for feeling, which is not? Which food/flavours can I identify by taste? Which smells can I match?

CONCEPTUAL SCHOOL AMBITION DRIVERS

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

Science - SEASONAL CHANGE - Throughout the whole year.

YEAR 1

HUMANITY - Diversity

Scientific Knowledge & Understanding

Science Enquiry & Working Scientifically

Uses & Implications of Science today and for the future

	NC	CUMWHINTON CURRICULUM
Finding out (Facts & knowledge)	<p><u>Seasonal Change</u></p> <p>Observe changes across the 4 seasons</p> <p>Observe and describe weather associated with the seasons and how day length varies</p> <p>Observations of the seasons and the weather will take place across the whole year, but the specific content & vocabulary teaching around day length, naming seasons etc. will take place here.</p> <p>Seasonal change - new season & how seasons affect plants</p> <p>Seasonal change - new season & how seasons affect animals' behaviour</p>	<p>Teach the 12 months of the year are January, February, March, April, May, June, July, August, September, October, November and December.</p> <p>These 12 months fit into four seasons are spring, summer, autumn and winter.</p> <p>The months of the year repeat in a predictable cycle.</p> <p>The seasons repeat in a predictable cycle.</p> <p>The four seasons are spring, summer, autumn and winter.</p> <p>Different events take place in different seasons.</p> <p>The weather changes from season to season.</p> <p>We wear different clothes in different seasons as the weather changes.</p> <p>Plants change in different ways as the seasons change.</p> <p>There are different types of weather.</p> <p>Types of weather include cloudy and overcast, snow, sunny, sunny with few clouds, thunder and lightning, and rain.</p> <p>As the seasons change, so do the number of hours of daylight, the Sun rises and sets at different times.</p> <p>Days in spring and autumn receive similar amounts of daylight.</p>
Using (Applying & analysing)	<p>Identifying and classifying</p> <p>Observing closely, using simple equipment</p> <p>Asking simple questions and recognising that they can be answered in different ways</p> <p>Gathering and recording data to help in answering questions</p>	<p>Throughout the year as the seasons change.</p> <p>What is the weather like in ... ?</p> <p>What clothes would be best for this season?</p> <p>What do the trees and plants look like in this season?</p> <p>What happens to wildlife/ animals?</p> <p>How long are the days?</p> <p>Measure temperature/ rainfall/ wind gauge</p> <p>Create a weather diary and compare weather in different seasons.</p> <p>Seasonal walk around school grounds/ village to observe changes.</p>
Concluding (Evaluating & summarising)	<p>Demonstrate their knowledge in different ways e.g. making a weather forecast video, writing seasonal poetry, creating seasonal artwork</p>	<p>Observe and describe weather associated with the seasons and how day length varies.</p> <p>Weather diary/forecast video</p> <p>Seasonal poetry, Observe closely using simple equipment, Thermometer, Rain gauge</p>

Science - AUTUMN Everyday Materials

YEAR 1

HUMANITY - Diversity

Scientific Knowledge & Understanding

Science Enquiry & Working Scientifically

Uses & Implications of Science today and for the future

Can you link diverse materials with their properties and uses?

	NC	CUMWHINTON CURRICULUM
Finding out (Facts & knowledge)	<p><u>Everyday materials</u> Distinguish between an object and the material from which it is made</p> <p>Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock</p> <p>Compare and group together a variety of everyday materials on the basis of their simple physical properties</p> <p>Describe the simple physical properties of a variety of everyday materials</p>	<p>Explain that objects are made from materials, giving examples, including some objects that are made from more than one material. Show children examples of objects that are made from wood, metal, glass, fabric, paper, rock and plastic. Go through each of these examples to explain the difference between an object and the material that it is made from. Ask children if they can think of any objects that can be made from different materials e.g. a bottle can be made from glass or plastic Have a range of objects that are made of a range of materials. Try to have objects that are; made from wood, metal, glass, fabric, paper, rock and plastic Each made purely from one material e.g. a pencil might be made from lead, wood and metal, so a lollipop stick might be preferable. Children to group and sort objects according to their properties. Teach the meaning of phrase 'properties of materials' The property of a material is something about it that we can measure, see or feel and helps us decide whether or not it is the best material. Whilst sharing a range of everyday materials with the children ask them to think of words to describe materials. Share some examples of basic describing words for materials and an explanation of how these words describe the properties of materials. Explain what each of the following properties means, with visual examples of materials / objects that have each property: hard, soft, bendy, stretchy, stiff, shiny, dull, rough, smooth bendy/not bendy; waterproof/not waterproof; absorbent/not absorbent; opaque/transparent.</p>
Using (Applying & analysing)	<p>Asking simple questions and recognising that they can be answered in different ways</p> <p>Performing simple tests</p> <p>Using their observations and ideas to suggest answers to questions</p> <p>Gathering and recording data to help in answering questions</p>	<p>Test the properties of objects e.g. absorbency of cloths, strength of hats made of different papers, stiffness of paper plates, and waterproofness of shelters. They should work scientifically to explore the answers to questions e.g. What is the best material to make a hat/ coat/ umbrella for The Gingerbread man? Water proof investigation What material is best for the windows for The Gingerbread Man's house? Transparency investigation. Transparent, translucent, opaque.</p>
Concluding (Evaluating & summarising)	<p>Using their observations and ideas to suggest answers to questions</p> <p>Gathering and recording data to help in answering questions</p>	<p>Review differences between objects and materials What have they found out throughout their investigations? Why did they chose certain materials for different purposes? Review property grouping - have any moved groups now that you have completed some investigations? Record data from investigations. Can you link diverse materials with their properties and uses? - Link to original topic question</p>