



YEAR 1 SCIENCE CURRICULUM MAP

Overview:

	AUTUMN 1	AUTUMN 2	Spring 1	Spring 2	Summer 1	Summer 2
Unit of Work National Curriculum	Animals including humans The human body	Animals including humans Animals	Plants	Plants	Everyday materials	Completing the Unit on seasons
Switched on Science Resource	Topic 1 Who am I?	Topic 3 Polar places	Topic 4 Plants and animals where we live	Topic 4 Plants and animals where we live	Topic 2 Celebrations	Topic 6 Project based Holiday
All year round Seasons	September and October activities How are weather patterns related to seasonal changes?	November and December activities How are weather patterns related to seasonal changes?	January and February activities How are weather patterns related to seasonal changes?	March and April activities How are weather patterns related to seasonal changes?	May and June activities How are weather patterns related to seasonal changes?	July and August activities How are weather patterns related to seasonal changes?
Children will continue collecting evidence through the use of diaries , pictures and photos,	Children will note changes to trees and plants and look at how daylight varies in seasons.	Children will note changes to trees and plants and look at how daylight varies in seasons.	Children will note changes to trees and plants and look at how daylight varies in seasons.	Children will note changes to trees and plants and look at how daylight varies in seasons.	Children will note changes to trees and plants and look at how daylight varies in seasons. <div data-bbox="1541 1257 1839 1369" style="border: 1px solid gray; padding: 5px;"> <p>COLLECTING SEASONAL WORDS</p> <ul style="list-style-type: none"> • Buds • Colourful • Flowers • Insects • Planting • Temperature • Warmer </div>	Children will note changes to trees and plants and look at how daylight varies in seasons. <div data-bbox="1865 1257 2163 1369" style="border: 1px solid gray; padding: 5px;"> <p>COLLECTING SEASONAL WORDS</p> <ul style="list-style-type: none"> • Dry • Natural art • Summer • Suncream • Hot • Rainfall • Sun • Temperature • Measuring • Shadows • Sunburn </div>

descriptive writing and poetry	<p>COLLECTING SEASONAL WORDS</p> <ul style="list-style-type: none"> • Autumn • Breezy • Changing • Chilly • Cloudy • Cool • Cooler • Darker • Fog • Fruits • Rainy • Warm • Windy 	<p>seasons.</p> <p>COLLECTING SEASONAL WORDS</p> <ul style="list-style-type: none"> • Bitter cold • Bright • Cold • Freeze • Freezing • Frost • Frosty • Gales • Heavy rain • Ice • Snow • Stormy • Sunny • Winter 	<p>COLLECTING SEASONAL WORDS</p> <ul style="list-style-type: none"> • Blizzard • Cold • Coldest • Freezing point • Gritting • Icy • Liquid • Melt • Perishing • Scrape • Sledge • Sleet • Slide • Slip • Snowballs • Snowman • Solid 	<p>COLLECTING SEASONAL WORDS</p> <ul style="list-style-type: none"> • Animals • Babies • Birds • Buds • Day length • Grow • Growth • Invertebrates • Nest • Nesting • Spring • Temperature • Twigs • Warm • Warmer 		
<p>Substantive knowledge</p> <p>Key knowledge</p>	<p>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>	<p>identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals</p> <p>identify and name a variety of common animals that are carnivores, herbivores and omnivores</p> <p>describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets)</p> <p>identify animals and birds found in their local area and explain where they are and why.</p>	<p>Plants are living things that grow and change.</p> <p>Children will have already made some observations about plants when tracking seasonal changes over the year.</p> <p>identify and name a variety of common wild and garden plants, including deciduous and evergreen trees</p> <p>identify and describe the basic structure of a variety of common flowering plants, including trees</p> <p>To explain how plants change over time</p>	<p>Plants are living things that grow and change.</p> <p>Children will have already made some observations about plants when tracking seasonal changes over the year.</p> <p>identify and name a variety of common wild and garden plants, including deciduous and evergreen trees</p> <p>identify and describe the basic structure of a variety of common flowering plants, including trees</p> <p>To explain how plants change over</p>	<p>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>describe the simple physical properties of a variety of everyday materials</p> <p>compare and group together a variety of everyday materials on the basis of their simple physical properties</p> <p>To explore, name, discuss and raise and</p>	<p>identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.</p> <p>identify and name a variety of common animals that are carnivores, herbivores or omnivores.</p> <p>describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets).</p>

		<p>sort animals into groups and explain the criteria they used,</p> <p>explain why certain animals have certain characteristics.</p> <p>explain similarities and differences between a range of animals</p> <p>understand how to take care of animals taken from their local environment and the need to return them safely after study.</p> <p>To explain what a pet is.</p> <p>To identify the common pets owned by people.</p> <p>To group pets by different criteria.</p> <p>To explain the responsibility of looking after a pet and how to do so.</p>	<p>and how this is linked to the seasons</p> <p>Explain in simple terms why plants are important.</p> <p>To use the local environment throughout the year to explore and answer questions about plants growing in their habitat.</p> <p>To observe the growth of flowers and vegetables that they have planted.</p> <p>To 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).</p>	<p>time and how this is linked to the seasons</p> <p>Explain in simple terms why plants are important.</p> <p>To use the local environment throughout the year to explore and answer questions about plants growing in their habitat.</p> <p>To observe the growth of flowers and vegetables that they have planted.</p> <p>To 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).</p>	<p>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.</p> <p>To 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.</p> <p>To work scientifically by:</p> <p>performing simple tests to explore questions, for example: 'What is the best material for an umbrella? ... for</p>	<p>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>describe the simple physical properties of a variety of everyday materials.</p>
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		<p>To explain why certain animals should not be kept as pets and why.</p> <p>To understand the role of the RSPCA in rescuing mistreated pets and other animals.</p>			<p>lining a dog basket? ... for curtains? ... for a bookshelf? ... for a gymnast's leotard?'</p>	
Key Vocabulary	<p>head, neck, arms, elbows, legs, knees, face, ears, eyes, hair, mouth, teeth, senses, smell, taste, hearing, sight, touch</p>	<p>bird, mammal ,amphibian fish, reptile ,omnivore herbivore, carnivore, human, body parts, senses</p>	<p>plant, flower, seeds, roots, stem, branch, leaves, petals, fruit,</p>	<p>plant, flower, seeds, roots, stem, branch, leaves, petals, fruit,</p>	<p>material, properties, stretchy, waterproof, absorbent, rough,</p>	
Disciplinary knowledge Working scientifically	<p>asking simple questions and recognising that they can be answered in different ways</p> <p>observing closely, using simple equipment</p> <p>performing simple tests</p> <p>identifying and classifying</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>asking simple questions and recognising that they can be answered in different ways</p> <p>observing closely, using simple equipment</p> <p>performing simple tests</p> <p>identifying and classifying</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>asking simple questions and recognising that they can be answered in different ways</p> <p>observing closely, using simple equipment</p> <p>performing simple tests</p> <p>identifying and classifying</p> <p>using their observations and ideas to suggest answers to questions</p>	<p>asking simple questions and recognising that they can be answered in different ways</p> <p>observing closely, using simple equipment</p> <p>performing simple tests</p> <p>identifying and classifying</p> <p>using their observations and ideas to suggest answers to questions</p>	<p>asking simple questions and recognising that they can be answered in different ways</p> <p>observing closely, using simple equipment</p> <p>performing simple tests</p> <p>identifying and classifying</p> <p>using their observations and ideas to suggest answers to questions</p>	<p>Ask simple questions and recognise that they can be answered in different ways.</p> <p>Observe closely, using simple equipment.</p> <p>Perform simple tests.</p> <p>Identify and classify.</p> <p>Use observations and ideas to suggest answers to questions.</p>


			gathering and recording data to help in answering questions	gathering and recording data to help in answering questions	gathering and recording data to help in answering questions	Gather and record data to help in answering questions.
Cultural Capital Scientists	Linda Buck – biologist who researched how we smell things	David Attenborough - naturalist	David Bellamy - botanist, environmental campaigner	David Bellamy - botanist, environmental campaigner	Ole Kirk Christiansen – inventor of Lego	
Cultural Capital Suggestions for school visits or visitors	Invite a doctor to talk about the body Optician Dentist	Belmont farm London Zoo	Kew Gardens	Local garden centre	Science Museum	Meteorologist
Teacher CPD links						

Units lesson by lesson

Year 1 Animals including humans - The human body


Pupils previously learnt:

- Talk about members of their immediate family and community.
- Name and describe people who are familiar to them.
- Use all their senses in hands-on exploration of natural materials.

Lesson number	North Star Question 	Pupils will learn		Key vocabulary
		Substantive knowledge	Disciplinary knowledge	
1	Rising stars assessment Front cover (KWL) Knowledge organiser	Teacher assessment		
2	What is the name of the parts of the human body ?	To identify, name, draw and label the basic parts of the human body.	asking simple questions identifying	head, neck, arms, elbows, legs, knees, face, ears, eyes, hair, mouth, teeth,
3	What body part is associated with sight and smell?	To say which part of the body is associated with sight and smell.	observing closely, using simple equipment using their observations and ideas to suggest answers to questions	senses, smell, taste, hearing, sight, touch
4	What body part is associated with touch, taste, hearing?	To say which part of the body is associated with touch, taste, hearing.	observing closely, using simple equipment using their observations and ideas to suggest answers to questions	senses, smell, taste, hearing, sight, touch
5	How does height impact the length of hand spans?	Carry out comparative tests and measure using non standard units.	performing simple tests gathering and recording data to help in answering questions	Longer, shorter, compare, results, measure
6	How does height impact foot size ?	Carry out comparative tests and measure using non standard units.	performing simple tests gathering and recording data	Longer, shorter, compare, results, measure

			to help in answering questions	
7	Scientist Linda Buck – biologist who researched how we smell things	To find out about ...		
8 and 9	Rising Stars end of unit assessment Update seasons diary	Teacher to identify any gaps and plan recap To observe changes across the four seasons To observe and describe weather associated with the seasons and how day length varies		


Year 1 Animals including humans - Animals

Pupils previously learnt:				
<ul style="list-style-type: none"> • Understand the key features of the life cycle of a plant and an animal. • Begin to understand the need to respect and care for the natural environment and all living things. • Recognise some environments that are different to the one in which they live. 				
Lesson number	North Star Question	Pupils will learn		Key Vocabulary
		Substantive knowledge	Disciplinary knowledge	
1	Rising stars assessment Front cover (KWL) Knowledge organiser	Teacher assessment		

2	Which groups do different animals belong to?	To describe characteristics of mammals and amphibians.		Mammals, Amphibians, animals, fish, reptiles, birds. https://drive.google.com/drive/folders/1EAzrcYspj3dRsOPNgTLMjsmTQixulwBk
3	Which groups do different animals belong to?	To describe the characteristics of birds, reptiles and fish..		Gills, lungs, live young, eggs, feathers, wings, land, cold blooded, warm blooded, fins, bird, reptile, fish
4	Which animals are carnivores, herbivores and omnivores?	To identify and name a variety of common animals that are carnivores, herbivores and omnivores		Carnivore, herbivore, omnivore, food chain, classify, hunting, prey. https://drive.google.com/drive/folders/1EAzrcYspj3dRsOPNgTLMjsmTQixulwBk
5	How can we sort a variety of common animals?	To describe and compare the structure of a variety of common animals fish, amphibians, reptiles, birds, mammals,		Classify, animals, identify, mammal, reptile, insect, amphibian, fish, birds, fur, scales, fins, lays eggs, gives birth, warm-blooded, cold-blooded https://drive.google.com/drive/folders/1EAzrcYspj3dRsOPNgTLMjsmTQixulwBk
6	How can we sort a variety of common animals?	To describe and compare the structure of a variety of common animals fish, amphibians, reptiles,		Classify, animals, identify, mammal, reptile, insect, amphibian, fish, birds, fur, scales, fins, lays eggs, gives birth, warm-

		birds, mammals,		blooded, cold-blooded
7	What do different animals eat?	To identify the diet of different common animals.		Oxygen, carnivores, herbivores, omnivores, humans, hibernating, seasons- summer, winter, autumn https://drive.google.com/drive/folders/1EAzrcYspj3dRsOPNgTLMjsmTQiXulwBk
8	Which animals are kept as pets? Why?	To identify animals kept as pets. To explain how to look after a pet safely.		pets, dogs, cats, fish, birds, hamsters, safe, dangerous https://drive.google.com/drive/folders/1EAzrcYspj3dRsOPNgTLMjsmTQiXulwBk
9	Scientists David Attenborough - naturalist	To find out about ...		
10 and 11	Rising Stars end of unit assessment Update seasons diary	Teacher to identify any gaps and plan recap To observe changes across the four seasons To observe and describe weather associated with the seasons and how day length varies		


Year 1 Plants

Pupils previously learnt:				
<ul style="list-style-type: none"> Plant seeds and care for growing plants. Understand the key features of the life cycle of a plant and an animal. Recognise some environments that are different to the one in which they live. 				
Lesson number	North Star Question 	Pupils will learn		Key vocabulary
		Substantive knowledge	Disciplinary knowledge	
1	Rising stars assessment Front cover (KWL) Knowledge organiser	Teacher assessment		
2	How is our flower growing?	Children plant a flower seed and set up observation experiments.	Observe	
3	How is our vegetable growing?	Children plant a vegetable seed or bulb and set up observation experiments.	Observe	
4	What types of plants grow in the wild? What types of plants grow in the garden?	To identify and name a variety of common wild and garden plants		Grow, wild, garden, plants, https://drive.google.com/drive/folders/1EAzrcYspj3dRsOPNgTLMjsmTQixulwBk
5	What are the parts of trees called?	To identify parts of a tree		roots, trunk, branches,

				tree, fruits https://docs.google.com/document/d/1FwsTJmKECLwrXilAwUOpXmmp_eZfaP6vDWavv2sgFXE/edit
6	What is the difference between deciduous and evergreen trees?	To compare and contrast the differences and similarities between deciduous and evergreen trees Identifying common trees from their leaves.		
7	What is the basic structure of a flowering plant?	To identify common flowers		
8	What are the common names of flowers?	To identify parts of a flower		leaves, flowers, blossom, petals, stem, roots, seed https://drive.google.com/drive/folders/1EAzrcYspj3dRsOPNgTLMjismTQixulwBk ,
9	What is the same and what is different about the flowers and vegetables we planted?	To compare and contrast familiar plants		compare , contrast , flower , vegetable , similarities , differences
10	Scientist David Bellamy - botanist, environmental campaigner	To find out about ...		
11 and 12	Rising Stars end of unit assessment	Teacher to identify any		

	Update seasons diary	gaps and plan recap To observe changes across the four seasons To observe and describe weather associated with the seasons and how day length varies		
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Year 1 Everyday materials

Pupils previously learnt:				
Lesson number	North Star Question 	Pupils will learn		Key vocabulary
		Substantive knowledge	Disciplinary knowledge	
1 Slides	Rising stars assessment Front cover (KWL) Knowledge organise	Teacher assessment		
2	What is a material?	To identify and name a		material, wood, plastic,

Slides		variety of everyday materials		glass, metal, water, rock, brick, paper, fabric, elastic, foil, card/cardboard, rubber, wool, clay https://drive.google.com/drive/folders/1EAzrcYspj3dRsOPNgTLMjsmTQixulwBk ,
3 Slides	Which material is best for different objects?	To distinguish between an object and the material from which it is made		Object, material, wood, plastic, glass, metal, water, rock, brick, paper, fabric, elastic, foil, card/cardboard, rubber, https://drive.google.com/drive/folders/1EAzrcYspj3dRsOPNgTLMjsmTQixulwBk wool, clay,
4	How can objects be described?	To describe the physical properties of a variety of everyday materials		hard, soft, stretch, stiff, shiny, dull, rough, smooth, bendy, not bendy, waterproof, not waterproof, absorbent, not absorbent, opaque, transparent https://drive.google.com/drive/folders/1EAzrcYspj3dRsOPNgTLMjsmTQixulwBk https://drive.google.com/drive/folders/1EAzrcYspj3dRsOPNgTLMjsmTQixulwBk
5	How can you group and	To compare and group		

	compare materials ?	together a variety of everyday materials		
6	What is the best material for an umbrella?	To perform a simple test to find out which material is best for an umbrella		
7	What is the best material for curtains?	To perform a simple test to find out which material is best for curtains		
8	What is the best material for a bookshelf?	To perform a simple test to find out which material is best for a bookshelf		
9	Scientist Ole Kirk Christiansen – inventor of Lego			
10 and 11 Slides	Rising Stars end of unit assessment Update seasons diary	To observe changes across the four seasons To observe and describe weather associated with the seasons and how day length varies		

Year 1 Holiday - project based

Lesson number	North Star Question	Pupils will learn	Key vocabulary
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		Substantive knowledge	Disciplinary knowledge	
1	What do you need to pack for a holiday?	6.1 Get packed!		animal, beach, crab, fish, habitat, litter, pollution, rock pool, rubbish, sand, sea, sea shore, shell, sun screen, sun glasses, sunburn
2	What do you need to pack for a holiday?	6.1 Get packed!		animal, beach, crab, fish, habitat, litter, pollution, rock pool, rubbish, sand, sea, sea shore, shell, sun screen, sun glasses, sunburn
3	What animals can you see at the seaside?	6.2 By the seaside		animal, beach, crab, fish, habitat, litter, pollution, rock pool, rubbish, sand, sea, sea shore, shell, sun screen, sun glasses, sunburn
4	What animals can you see at the seaside?	6.2 By the seaside		animal, beach, crab, fish, habitat, litter, pollution, rock pool, rubbish, sand, sea, sea shore, shell, sun screen, sun glasses, sunburn
5	How can we protect the seaside?	6.3 Protect the environment		animal, beach, crab, fish, habitat, litter, pollution, rock pool, rubbish, sand,

				sea, sea shore, shell, sun screen, sun glasses, sunburn
6	How can we protect the seaside?	6.3 Protect the environment		animal, beach, crab, fish, habitat, litter, pollution, rock pool, rubbish, sand, sea, sea shore, shell, sun screen, sun glasses, sunburn
7 and 8	Update seasons diary Children to complete their seasons diary	To observe changes across the four seasons To observe and describe weather associated with the seasons and how day length varies		