

Bishop Aldhelm's CE Primary School - Science

Our school values in science are developed by:

We show love by fostering a joy of discovery.

We show courage by being brave, challenging thinking, asking questions and investigating new ideas. We show courage knowing that we won't always find the answer.

We show unity by working collaboratively to discover more.

We show inspiration by not giving up and thinking creatively to seek answers.

Our curriculum

Our science curriculum is designed to foster a love of discovery in our children, with them being able to challenge what they already know, have a deep respect for the natural world and know that they can make a difference to the future. Knowledge and skills are progressed over time to prepare children not only for their next stage of education but also to equip them with the foundations to be the scientists of the future. Science topics are planned with practical hands-on experiences that encourage curiosity and questioning. We want children to secure their scientific knowledge and vocabulary through stimulating and challenging experiences that promote a love of learning.

Our curriculum is based on key concepts that thread through our science curriculum from pre-school to Year 6. This helps build on prior learning and support pupils making strong links in their knowledge. Throughout each of the topics, children develop and progress their knowledge of how to work scientifically. The concept map on the right shows how our curriculum has been designed.

Importance to Bishop Aldhelm's children and local links:

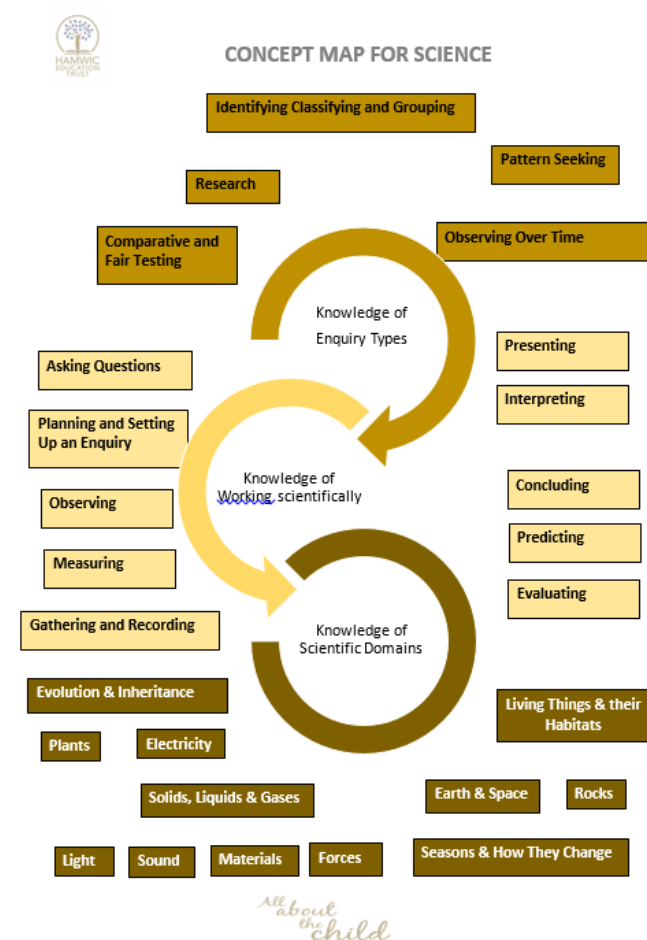
At Bishop Aldhelm's we are fortunate to live next to a range of habitats including heathland, beaches, forests and cliffs. We are one of the only schools in the country that has a SSSI (site special scientific interest) on our grounds. This means that children can experience a range of habitats and locations first-hand through our science teaching. In Poole, we have a number of factories including Sunseeker, Lush and Ryvita. Explicit links are made in relevant topics to these industries as well as visits/visitors where possible to show how their learning is relevant in real life.

We want children to leave Bishop Aldhelm's being able to:

- feel confident that they can challenge ideas
- pose questions and come up with ways that they can be answered
- be scientifically literate- being able to use the language of science and apply it to contexts around them
- take their knowledge and values to inform and influence others.
- use their previously learnt knowledge to continue to deepen their understanding of scientific concepts
- believe that they are scientists!

How all children are included in science:

- Pre-teaching is used to explain key vocabulary and concepts prior to the lesson.
- Partner and group work is encouraged to develop children's explanations.
- Alternative ways of recording/scaffolds are used for children so that they can demonstrate their scientific knowledge in accessible ways.
- Where possible, practical demonstrations, equipment or videos are used to explain concepts to children.
- Investigates are used as often as possible to make learning relevant.



Year F					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
		Plants	Living things and their habitats Animals	Materials	
Seasonal Change					

Year 1					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Seasonal Change					

Year 2					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Seasons					

		Foundation	Year 1	Year 2
PLANTS	Objectives	<ul style="list-style-type: none"> ELG - Explore the natural world around them, making observations and drawing pictures of animals and plants ELG - Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class. ELG - Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. 	<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 	<ul style="list-style-type: none"> find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. observe and describe how seeds and bulbs grow into mature plants
	Links to previous learning	<p>Objectives:</p> <p>Knowledge</p> <p>Pre-school - Plant seeds and care for growing plants</p>	<p>Objectives:</p> <p>YF - ELG - Explore the natural world around them, making observations and drawing pictures of animals and plants</p> <p>YF - ELG - Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class.</p> <p>YF - ELG - Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.</p> <p>Knowledge</p> <p>YF – growing plants and observing change in size</p>	<p>Objectives:</p> <p>Y1 - identify and name a variety of common wild and garden plants, including deciduous and evergreen trees.</p> <p>Y1 - identify and describe the basic structure of a variety of common flowering plants, including trees</p> <p>Knowledge</p> <p>YF – growing plants and observing change in size</p> <p>Y1 – identifying and classifying plants and trees, basic plants of a plants</p>
	Knowledge	<p>Key vocabulary</p> <p>Plant, tree, bush, inside, outside, grow, tall, short, seed, flower</p> <hr/> <p>Children should know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur, and talk about changes.</p>	<p>Key vocabulary</p> <p>Leaf, flower, blossom, petal, fruit, berry, root, seed, trunk, branch, stem, bark, stalk, bud, Evergreen, deciduous</p> <p>Names of trees in the local area</p> <p>Names of garden and wild flowering plants in the local area</p> <hr/> <p>To identify deciduous and evergreen trees in the local area and know that deciduous trees shed their leaves in autumn and grow them again in spring, whilst evergreen trees keep their leaves all year round.</p> <p>To name the basic parts of a plant and say what each part does. Know that these vary between the different types of plant. The roots of a plant take up water and nutrients from the soil. They also anchor the plant to the ground and keep it steady.</p> <p>The stem carries water and nutrients to different parts of the plant. It also provides support and keeps the plant standing upright.</p> <p>Leaves provide food and air to help a plant stay healthy and grow.</p> <p>Identify and name a variety of wild and garden plants and trees by looking at their characteristics.</p>	<p>Key vocabulary</p> <p>Roots (y1), stem (y1), flower, leaves, absorb, nutrients, minerals, soil, anchor, seeds, bulbs, temperature, conditions, germination, photosynthesis, pollination, seed dispersal.</p> <hr/> <p>The roots absorb water and nutrients from the soil and anchor the plant in place.</p> <p>Different plants require different conditions for germination and growth</p> <p>The stem transports water and nutrients/minerals around the plant and holds the leaves and flowers up in the air to enhance photosynthesis, pollination and seed dispersal. The leaves use sunlight and water to produce the plant’s food.</p>
	Types of Enquiry	<p>Observing over time - growth of plants</p> <p>Research from secondary sources - via teacher presenting information to the children</p>	<p>Identifying, grouping and classifying</p> <p>Observing over time</p>	<p>Comparative testing - what do plants need to grow?</p> <p>Observing over time</p>

			Research from secondary sources - via teacher presenting information to the children Pattern seeking - what happens in the different seasons?	Research from secondary sources - via teacher presenting information to the children and some researching themselves Pattern seeking - do plants always need ... to grow?
	Working Scientifically (skills and equipment needed)	Observing plants growth with eyes Measuring height increase with cubes Asking questions Pattern seeking by observing seasonal changes – do these things always happen in Autumn/Winter/Spring/Summer?	Make close observations of flowers and vegetables that we have planted with magnifying glasses Make observations of how plants change over a period of time e.g. leaves falling off, buds opening – science portfolio Compare and contrast two leaves, seeds, flowers etc. Classify leaves, seeds, flowers etc. using a range of characteristics Identify plants by matching them to real life samples, resources/ images	Make close observations of seeds and bulbs Observe and test what happens to plants over time when the leaves or roots are removed
	What/Implementati on	Heath walk to observe seasonal change Growing plants (cress) from seeds and seeing them grow (see that the height increases)	Observational drawings and diagrams to show parts of plants, including trees Heath/school visit to learn about and identify different kinds of trees (school map of location of different trees) Growing different kinds of plants with a view to compare them	Experiments about conditions for plant growing Seed diary (over a few weeks) Beans growing on windows to see root structure and germination Labelling the parts of a plant Celery experiment to see roots uptake of water Growing plants to compare ideal conditions for growth (what do plants need to grow?) Trip to Avon Heath
	Awe and wonder (if WS is not covered enough through concept)			

		Foundation	Year 1	Year 2
ANIMALS INCLUDING HUMANS HUMANS	Objectives	<ul style="list-style-type: none"> ELG - Explore the natural world around them, making observations and drawing pictures of animals and plants 	<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 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 	<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
	Links to previous learning	<p>Objectives –</p> <p>Knowledge</p> <p>Preschool - observed pet fish growing, lifecycles of frogs and caterpillars?</p>	<p>Objectives –</p> <p><i>YF - ELG - Explore the natural world around them, making observations and drawing pictures of animals and plants</i></p> <p>Knowledge</p> <p><i>YF - observed lifecycles of frogs and caterpillars</i></p>	<p>Objectives:</p> <p><i>Y1 - identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals</i></p> <p><i>Y1 - identify and name a variety of common animals that are carnivores, herbivores and omnivores</i></p> <p><i>Y1 - describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets)</i></p> <p><i>Y1 - identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense</i></p> <p>Knowledge</p> <p><i>YF – observed lifecycles</i></p> <p><i>Y1 – animals can be grouped in different ways, animals have babies that may or may not look like them, animals need certain things to survive</i></p>
	Knowledge	<p>Key vocabulary</p> <p>Animal, people, person, life cycle</p> <hr/> <ul style="list-style-type: none"> Children at the expected level of development will explore the natural world around them, making observations and drawing pictures of animals and plants. 	<p>Key vocabulary</p> <p>Head, body, eyes, ears, mouth, teeth, leg, tail, wing, claw, fin, scales, feathers, fur, beak, paws, hooves</p> <p>Parts of the body including those linked to PSHE teaching (see joint document produced by the ASE and PSHE association)</p> <p>Senses, touch, see, smell, taste, hear, skin, eyes, nose, ear and tongue</p> <hr/> <ul style="list-style-type: none"> Animals vary in many ways having different structures e.g. wings, tails, ears etc. They also have different skin coverings e.g. scales, feathers, hair. These key features can be used to identify them. Animals eat certain things - some eat other animals, some eat plants, some eat both plants and animals. Names of animals experienced first-hand from each vertebrate group (fish, amphibians, reptiles, birds and mammals) Humans have keys parts in common, but these vary from person to person. Humans (and other animals) find out about the world using their senses. Humans have five senses – sight, touch, taste, hearing and smelling. These senses are linked to particular parts of the body. <p><i>N.B. The children need to be able to name and identify a range of animals in each group e.g. name specific birds and fish. They do not need to use the terms mammal, reptiles etc. or know the key characteristics of each, although they will probably be able to identify birds and fish, based on their characteristics.</i></p> <p><i>The children also do not need to use the words carnivore, herbivore and omnivore. If they do, ensure that they understand that carnivores eat other animals not just meat.</i></p>	<p>Key vocabulary</p> <p>healthy, diet, protein, fat, carbohydrates, dairy, breathing, germs, nutrition, exercise, growth, survival, offspring, life cycle, hygiene, disease</p> <hr/> <p><i>Brief recap on Year 1 topic of animals</i></p> <ul style="list-style-type: none"> Animals need air, water, food and shelter to survive. All living things reproduce and have offspring. Some animals have babies that look like them when they are born, and some offspring do not look like their adult. E.g. fish and amphibians To be healthy, we must eat the right foods in the right proportions. We must try to eat 5 portions of fruit and vegetables every day. To stop illnesses and infections spreading, we must be hygienic and keep ourselves clean. Exercise is important for a healthy heart, body and mind.

	Types of Enquiry	<p>Observing over time - the life cycles of frogs and caterpillars</p> <p>Pattern seeking - the life cycles of frogs and caterpillars</p> <p>Research from secondary sources via teacher presenting information to the children about animals and life cycles</p>	<p>Observation over time – measuring heights</p> <p>Identifying, grouping and classifying - animals using a range of features (i.e. features and what they eat), people according to their features</p> <p>Research from secondary sources via teacher presenting information to the children</p> <p>Pattern seeking - what do animals/people always, sometimes, never have? Look for patterns between people e.g. Do people with big hands have big feet? Relationship between hair colour and eye colour</p>	<p>Research from secondary sources via teacher presenting information to the children – some children can now be more independent in doing research from carefully selected materials</p>
	Working Scientifically (skills and equipment needed)	<p>Observing tadpoles change to frogs using eyes and magnifying glasses</p> <p>Observing caterpillars change to butterflies using eyes and magnifying glasses</p> <p>Asking questions about changes observed</p> <p>Predicting what changes might occur</p>	<p>Observing – animals (first hand at Marwell) using eyes</p>	
	What/Implementation	<p>Observing tadpoles change to frogs</p> <p>Observing caterpillars change to butterflies</p>	<p>Classifying carnivores, herbivores and omnivores</p> <p>Africa topic</p> <p>Marwell Zoo trip</p>	
	Awe and wonder (if needed)			

		Foundation	Year 1	Year 2
LIVING THINGS AND THEIR HABITATS	Living things and & habitats - objectives	<ul style="list-style-type: none"> ELG - Explore the natural world around them, making observations and drawing pictures of animals and plants ELG - Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class. 	<ul style="list-style-type: none"> identify and name a variety of plants and animals in their habitats, including microhabitats (Y2) 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 (Y2) 	<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
	Links to previous learning	<p>Objectives:</p> <p>Knowledge</p> <p>Pre-school – Looking after plants and the pet fish</p>	<p>Objectives:</p> <p>YF - ELG - Explore the natural world around them, making observations and drawing pictures of animals and plants</p> <p>YF - ELG - Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class.</p> <p>Knowledge</p> <p>YF – Children should know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur, and talk about changes.</p> <p>YF - learnt about the kind of places some animals might like to life (for example the animals from the Gruffalo)</p>	<p>Objectives:</p> <p>Y1 - identify and name a variety of plants and animals in their habitats, including microhabitats</p> <p>Y1 - 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>Knowledge</p> <p>Y1 – Within a habitat there are different micro-habitats e.g. in a woodland – in the leaf litter, on the bark of trees, on the leaves. These micro-habitats have different conditions e.g. light or dark, damp or dry. These conditions affect what plants and animals live there. The plants and animals in a habitat depend on each other for food and shelter etc. The way that animals obtain their food from plants and other animals can be shown in a food chain.</p>
	Knowledge	<p>Key vocabulary:</p> <p>Living, habitat</p> <p>Children should know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur, and talk about changes.</p>	<p>Key vocabulary:</p> <p>suited, suitable, basic needs, food, food chain, shelter, move, feed, names of local habitats e.g. pond, woodland etc., names of micro-habitats e.g. under logs, in bushes etc.</p> <hr/> <p>Within a habitat there are different micro-habitats e.g. in a woodland – in the leaf litter, on the bark of trees, on the leaves. These micro-habitats have different conditions e.g. light or dark, damp or dry. These conditions affect what plants and animals live there. The plants and animals in a habitat depend on each other for food and shelter etc. The way that animals obtain their food from plants and other animals can be shown in a food chain.</p>	<p>Key vocabulary:</p> <p>Living, dead, never been alive, suited, suitable, basic needs, food, food chain, shelter, move, feed, names of local habitats e.g. pond, woodland etc., names of micro-habitats e.g. under logs, in bushes etc.</p> <hr/> <p>All objects are either living, dead or have never been alive. Living things are plants (including seeds) and animals. Dead things include dead animals and plants and parts of plants and animals that are no longer attached e.g. leaves and twigs, shells, fur, hair and feathers (this is a simplification but appropriate for year 2 children). An object made of wood is classed as dead. Objects made of rock, metal and plastic have never been alive (again ignoring that plastics are made of fossil fuels).</p> <p>Animals and plants live in a habitat to which they are suited which means that animals have suitable features that help them move and find food and plants have suitable features that help them to grow well. The habitat provides the basic needs of the animals and plants – shelter, food and water.</p>
	Types of Enquiry	<p>Observing over time - Research from secondary sources - via teacher presenting information to the children</p>	<p>Identifying, grouping and classifying</p> <p>Observing over time</p>	<p>Comparative testing - Observing over time</p>

			Research from secondary sources - via teacher presenting information to the children	Research from secondary sources - via teacher presenting information to the children and some researching themselves
			Pattern seeking -	Pattern seeking -
	Working Scientifically (skills and equipment needed)	Comparative/fair testing – Observation over time – Identifying, grouping and classifying – Research from secondary sources - via teacher presenting information to the children and some researching themselves Pattern seeking – Problem solving -	Comparative/fair testing – Observation over time – Identifying, grouping and classifying – Research from secondary sources - via teacher presenting information to the children and some researching themselves Pattern seeking – Problem solving -	Comparative/fair testing – Observation over time – Identifying, grouping and classifying – Research from secondary sources - via teacher presenting information to the children and some researching themselves Pattern seeking – Problem solving -
	What/Implementation	Talk about where we live and our environment Look at the habitats of animals in stories, such as the fox, owl and snake in the Gruffalo	Minibeast hunt/Bug hotel Identify and name minibeasts from hunt and talk about specific habitats Pond dipping Wooly worm game (explaining the food chain practically) Pictorial food chain (Gruffalo)	Explore outside living, dead and never lived Classify them into three groups Drawing and naming a variety of plants and animals and why they have certain features
	Awe and wonder <small>(if WS is not covered enough through concept)</small>			

		Foundation	Year 1	Year 2
EVERYDAY MATERIALS	Objectives	<ul style="list-style-type: none"> ELG - Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. 	<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. 	<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 <u>for particular uses</u> find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.
	Links to previous learning	<p>Objectives:</p> <p>Knowledge</p> <p>Pre-school -</p>	<p>Objectives:</p> <p>YF - ELG - Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.</p> <p>Knowledge</p> <p>YF – Children should know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur, and talk about changes.</p> <p>YF – looking at the how different materials can help or hinder speed</p>	<p>Objectives:</p> <p>Y1 - distinguish between an object and the material from which it is made</p> <p>Y1 - identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock</p> <p>Y1 - describe the simple physical properties of a variety of everyday materials</p> <p>Y1 - compare and group together a variety of everyday materials on the basis of their simple physical properties.</p> <p>Knowledge</p> <p>Y1 – All objects are made of one or more materials. Some objects can be made from different materials e.g. plastic, metal or wooden spoons. Materials can be described by their properties e.g. shiny, stretchy, rough etc. Some materials e.g. plastic can be in different forms with very different properties</p>
	Knowledge	<p>Key vocabulary</p> <p>Materials + names of materials used within junk modelling</p> <p>Children should know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur, and talk about changes.</p>	<p>Key vocabulary</p> <p>Object, material, wood, plastic, glass, metal, water, rock, brick, paper, fabric, elastic, foil, card/cardboard, rubber, wool, clay, hard, soft, stretchy, stiff, bendy, floppy, waterproof, absorbent, breaks/tears, rough, smooth, shiny, dull, see through, not see through</p> <hr/> <p>All objects are made of one or more materials. Some objects can be made from different materials e.g. plastic, metal or wooden spoons. Materials can be described by their properties e.g. shiny, stretchy, rough etc. Some materials e.g. plastic can be in different forms with very different properties.</p>	<p>Key vocabulary</p> <p>Names of materials – increased range from year 1</p> <p>Properties of materials - as for year 1 plus opaque, transparent and translucent, reflective, non-reflective, flexible, rigid</p> <p>Shape, push/pushing, pull/puling, twist/twisting, squash/squashing. Bend/bending, stretch/stretching</p> <hr/> <p>All objects are made of one or more materials that are chosen specifically because they have suitable properties for the task. For example, a water bottle is made of plastic because it is transparent allowing you to see the drink inside and waterproof so that it holds the water. When choosing what to make an object from, the properties needed are compared with the properties of the possible materials, identified through simple tests and classifying activities. A material can be suitable for different purposes and an object can be made of different materials.</p> <p>Objects made of some materials can be changed in shape by bending, stretching, squashing and twisting. For example, clay can be shaped by squashing, stretching, rolling, pressing etc. This can be a property of the material or depend on how the material has been processed e.g. thickness.</p>
	Type s of Enq uiry			

	Working Scientifically (skills and equipment needed)	Comparative/fair testing – Observation over time – Identifying, grouping and classifying – Research from secondary sources - via teacher presenting information to the children and some researching themselves Pattern seeking – Problem solving -	Comparative/fair testing – Observation over time – Identifying, grouping and classifying – Research from secondary sources - via teacher presenting information to the children and some researching themselves Pattern seeking – Problem solving -	Comparative/fair testing – Observation over time – Identifying, grouping and classifying – Research from secondary sources - via teacher presenting information to the children and some researching themselves Pattern seeking – Problem solving -
	What/Implementation	Materials testing using the ramps – which material would help the emergency car go the fastest?	Classifying lessons Discovery Dog: Investigation/ testing	Testing materials Investigation for a purpose (why would you need something to be absorbent)
	Awe and wonder (if WS is not covered enough through concept)			

		Foundation	Year 1	Year 2
SEASONAL CHANGE	Objectives	<ul style="list-style-type: none"> ELG - Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. 	<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. 	
	Links to previous learning	<p>Objectives:</p> <p>Knowledge</p> <p><i>Pre-school</i> – Observe seasonal change in everyday play when outside, discuss seasonal change as part of Forest School</p>	<p>Objectives:</p> <p>YF - ELG - Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.</p> <p>Knowledge</p> <p>YF – Children should know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur, and talk about changes.</p>	<p>Objectives:</p> <p>Y1 – observe changes across the four seasons</p> <p>Y1 - observe and describe weather associated with the seasons and how day length varies.</p> <p>Knowledge</p> <p>Y1 – In the UK, the day length is longest at mid-summer (about 16 hours) and gets shorter each day until mid-winter (about 8 hours) before getting longer again. The weather also changes with the seasons. In the UK, it is usually colder and rainier in Winter and hotter and dryer in the Summer. The change in weather causes many other changes; some examples are numbers of minibeasts found outside, seed and plant growth, leaves on trees and type of clothes worn by people.</p>
	Knowledge	<p>Key vocabulary Weather, warm, hot, cold, wet</p> <p>Children should know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur, and talk about changes.</p>	<p>Key vocabulary Weather (sunny, rainy, windy, snowy etc.), seasons (Winter, Summer, Spring, Autumn), sun, sunrise, sunset, day length</p> <hr/> <p>In the UK, the day length is longest at mid-summer (about 16 hours) and gets shorter each day until mid-winter (about 8 hours) before getting longer again. The weather also changes with the seasons. In the UK, it is usually colder and rainier in Winter and hotter and dryer in the Summer. The change in weather causes many other changes; some examples are numbers of minibeasts found outside, seed and plant growth, leaves on trees and type of clothes worn by people.</p>	Conservation
	Types of Enquiry	<p>Observing over time - growth of plants</p> <p>Research from secondary sources - via teacher presenting information to the children</p>	<p>Identifying, grouping and classifying</p> <p>Observing over time</p> <p>Research from secondary sources - via teacher presenting information to the children</p> <p>Pattern seeking - what happens in the different seasons?</p>	
	Working Scientifically (skills and equipment needed)	<p>Comparative/fair testing –</p> <p>Observation over time –</p> <p>Identifying, grouping and classifying –</p>	<p>Comparative/fair testing –</p> <p>Observation over time –</p> <p>Identifying, grouping and classifying –</p>	<p>Comparative/fair testing –</p> <p>Observation over time –</p> <p>Identifying, grouping and classifying –</p>

		Research from secondary sources - via teacher presenting information to the children and some researching themselves Problem solving - Pattern seeking by observing seasonal changes – do these things always happen in Autumn/Winter/Spring/Summer?	Research from secondary sources - via teacher presenting information to the children and some researching themselves Pattern seeking – Problem solving -	Research from secondary sources - via teacher presenting information to the children and some researching themselves Pattern seeking – Problem solving -
	What/Implementati on	Heath walk to observe seasonal change Observe seasonal change in everyday play such as Let’s Explore time Discuss seasonal change when doing the daily calendar	Collect information about the weather regularly throughout the year Present this information in table and charts to compare the weather across the seasons Collect information, regularly throughout the year, of features that change with the seasons e.g. plants, animals, humans Present this information in different ways to compare the seasons Gather data about day length regularly throughout the year and present this to compare the seasons	
	Awe and wonder (if WS is not covered enough through concept)			