



Year 2 Long Term Plan

	Plants (Main plants topic to plant and learn)	Everyday Materials	Animals and humans	Living Things	Living Things (Bramhope – Outdoor focus)	Plants and Health (Split topic)	
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	
Key Vocabulary	Leaf, flower, blossom, petal, fruit, berry, root, seed, trunk, branch, stem, bark, stalk, bud, deciduous, evergreen, botanist. Names of trees in the local area – e.g. sycamore, horse chestnut, beech, oak, silver birch Names of garden and wild flowering plants in the local area – e.g. daisy, buttercup, dandelion, forget-me-not, bluebell, daffodil, lily of the valley, cow parsley, foxglove, rose. Plus: light, shade, sun, warm, cool, water, grow, healthy, germination, bulb.	Names of materials –wood, metal, plastic, glass, brick, rock, paper, cardboard. Properties of materials –as for Year 1 plus opaque, transparent and translucent, reflective, non-reflective, flexible, rigid Shape, push/pushing, pull/pulling, twist/twisting, squash/squashing, bend/bending, stretch/stretching	Offspring, reproduction, growth, child, young/old stages (examples -chick/hen, baby/child/adult, caterpillar/butterfly),	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.		light, shade, sun, warm, cool, water, grow, healthy	exercise, heartbeat, breathing, hygiene, germs, disease, food types (examples – meat, fish, vegetables, bread, rice, pasta)
Previous Knowledge	In Year 1 children will have learnt: <ul style="list-style-type: none"><li>• Learnt to Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees</li><li>• Learnt to Identify and describe the basic structure of a variety of common flowering plants, including trees</li></ul>	In Year 1 children will have learnt: <ul style="list-style-type: none"><li>• Distinguish between an object and the material from which it is made</li><li>• Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock</li><li>• Describe the simple physical properties of a variety of everyday materials</li><li>• Compare and group together a variety of everyday materials on the basis of their simple physical properties</li></ul>	In EYFS, children will have <ul style="list-style-type: none"><li>• explored similarities and differences in relation to living things. They will have made observations of animals.</li></ul> In Year 1 children will have learnt: <ul style="list-style-type: none"><li>• Learnt to identify common animals including fish, amphibians, reptiles, birds and mammals.</li><li>• Learnt to identify carnivores, herbivores and omnivores.</li><li>• Described the basic parts of the human body and can say which part is associated with each sense.</li><li>• Learnt to care for animals in their local environment.</li></ul>	In Year 1 children will have learnt: <ul style="list-style-type: none"><li>• Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. (Y1 - Plants)</li><li>• Identify and describe the basic structure of a variety of common flowering plants, including trees. (Y1 - Plants)</li><li>• Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. (Y1 - Animals including humans)</li><li>• Identify and name a variety of common animals that are carnivores, herbivores and omnivores. (Y1 - Animals including humans)</li><li>• Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets). (Y1 – Animals, including humans)</li><li>• Observe changes across the four seasons. (Y1 - Seasonal changes)</li></ul>	In Year 1 children will have learnt: <ul style="list-style-type: none"><li>• Learnt to Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees</li><li>• Learnt to Identify and describe the basic structure of a variety of common flowering plants, including trees</li><li>• In Autumn 1, children will have learnt about bulbs and seeds and how to plant and care for them</li></ul>	In Year 1 and EYFS children will have learnt: <ul style="list-style-type: none"><li>• To care for themselves</li><li>• About healthy foods and exercise.</li></ul>	
NC Objectives and Key learning	<ul style="list-style-type: none"><li>•Observe and describe how seeds and bulbs grow into mature plants.</li><li>•Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.</li></ul>	<ul style="list-style-type: none"><li>•Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.</li><li>•Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching</li></ul>	<ul style="list-style-type: none"><li>• Notice that animals, including humans, have offspring which grow into adults.</li><li>• Find out about and describe the basic needs of animals, including humans, for survival (water, food and air)</li><li>• Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.</li></ul>	<ul style="list-style-type: none"><li>• Explore and compare the differences between things that are living, dead, and things that have never been alive.</li><li>• 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.</li><li>• Identify and name a variety of plants and animals in their habitats, including micro-habitats.</li><li>• 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</li><li>• Create simple food chains from information given e.g. in picture books (Gruffalo etc.)</li><li>• 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.</li><li>• Identify and name a variety of plants and animals in their habitats, including micro-habitats.</li><li>• 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.</li></ul>	<ul style="list-style-type: none"><li>•Observe and describe how seeds and bulbs grow into mature plants</li><li>•Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy</li></ul>	<ul style="list-style-type: none"><li>• Good hygiene is also important in preventing infections and diseases.</li><li>• Sun Safety</li></ul>	
Misconceptions	Some children may think: <ul style="list-style-type: none"><li>•plants are not alive as they cannot be seen to move</li><li>•seeds are not alive</li><li>•all plants start out as seeds</li><li>•seeds and bulbs need sunlight to germinate</li></ul>	Some children may think: <ul style="list-style-type: none"><li>•only fabrics are materials</li><li>•only building materials are materials</li><li>•only writing materials are materials</li><li>•the word rock describes an object rather than a material</li><li>•solid is another word for hard.</li></ul>	Some children may think <ul style="list-style-type: none"><li>•an animal’s habitat is like its ‘home’</li><li>•all animals that live in the sea are fish</li><li>•respiration is breathing</li><li>•breathing is respiration.</li></ul>	Some children may think: <ul style="list-style-type: none"><li>•an animal’s habitat is like its ‘home’</li><li>•plants and seeds are not alive as they cannot be seen to move</li><li>•fire is living</li><li>arrows in a food chain mean ‘eats’.</li></ul>	Autumn 1		

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Key knowledge to be assessed		•Plants may grow from either seeds or bulbs. These then germinate and grow into seedlings which then continue to grow into mature plants. These mature plants may have flowers which then develop into seeds, berries, fruits etc. •Seeds and bulbs need to be planted outside at particular times of year and they will germinate and grow at different rates. •Some plants are better suited to growing in full sun and some grow better in partial or full shade. •Plants also need different amounts of water and space to grow well and stay healthy.	•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. •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.	•Animals, including humans, have offspring which grow into adults. •In humans and some animals, these offspring will be young, such as babies or kittens, that grow into adults. •In other animals, such as chickens or insects, there may be eggs laid that hatch to young or other stages which then grow to adults. •The young of some animals do not look like their parents e.g. tadpoles. •All animals, including humans, have the basic needs of feeding, drinking and breathing that must be satisfied in order to survive. •To grow into healthy adults, they also need the right amounts and types of food and exercise. •Good hygiene is also important in preventing infections and illnesses.	•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). •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. •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 which 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.	See Autumn 1		
		What does this look like at Bramhope?		Resources	Seeds and bulbs to plant (plant bulbs towards end of Au 1). Seeds to plant in autumn – autumn vegetables Clipboards and outdoor observation equipment Watering cans and gardening equipment	Collect a range of materials for sorting/classifying Materials needed for investigations Materials to recycle		Clipboards and outdoor observation equipment
		Activities	•Make close observations of seeds and bulbs. •Classify seeds and bulbs. •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.	Look for a suitable book link. •Classify materials •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 Elastigirl’s costume, test materials for waterproofness to select the most appropriate for a rain hat. (Choose a relevant idea/book link).	• Ask people questions and use secondary sources to find out about life cycles of some animals  • Observe animals growing over a period of time e.g. chicks, caterpillars, a baby  • Ask pet owners questions about how they look after their pet	• See Outdoor Learning • Link to Polar regions topic – habitats and food chains • Construct food chains – use modelling • Explore the outside environment regularly to find objects that are living, dead and have never lived. • Classify objects found in the local environment • Observe animals and plants carefully, drawing and labelling diagrams • Create simple food chains for a familiar local habitat from first-hand observation and research – Use the wildlife garden and pond, field, trees • Draw the food chain of the Red Kite (seen daily above the school field)	•Make close observations and measurements of their plants growing from seeds and bulb •Make comparisons between plants as they grow.	Explore the effect of exercise on their bodies. •Classify food in a range of ways, including using the Eatwell Guide. •Investigate washing hands, using glitter gel.
		Enrichment	Wildlife garden	Recycling in school	Chick hatching and observation Butterfly garden/caterpillars	Wildlife garden		Visit from nurse/dentist/doctor
		Cross Curricular links/Texts	A seed is sleepy Ten seeds Bloom by Anne Booth From seed to sunflower The Secret Sky Garden The amazing lifecycle of plants	Michael Recycle meets Litter Bug Doug Somebody swallowed Stanley Lost and Found – Oliver Jeffers	Link with Uganda topic? Animals from different countries  Tad A tadpole’s promise The butterfly is patient The very hungry caterpillar Monkey puzzle	The big book of bugs Bonkers about beetles Mad about minibeasts Fanatical about frogs	A seed is sleepy Ten seeds Bloom by Anne Booth From seed to sunflower The Secret Skygarden The amazing lifecycle of plants	PSHE link with staying healthy and healthy lifestyle

## Year 1 & 2 Working Scientifically Skills – Taken from PLAN – Progression in working scientifically document

Asking questions and recognising they can be answered in different ways	Making observations and taking measurements	Engaging in practical enquiry to answer questions	Recording and presenting evidence	Answering questions and concluding
<p>Asking simple questions and recognising that they can be answered in different ways</p> <ul style="list-style-type: none"> <li>While exploring the world, the children develop their ability to ask questions (such as what something is, how things are similar and different, the ways things work, which alternative is better, how things change and how they happen). Where appropriate, they answer these questions.</li> <li>The children answer questions developed with the teacher often through a scenario.</li> <li>The children are involved in planning how to use resources provided to answer the questions using different types of enquiry, helping them to recognise that there are different ways in which questions can be answered.</li> </ul>	<p>Observing closely, using simple equipment</p> <ul style="list-style-type: none"> <li>Children explore the world around them. They make careful observations to support identification, comparison and noticing change. They use appropriate senses, aided by equipment such as magnifying glasses or digital microscopes, to make their observations.</li> <li>They begin to take measurements, initially by comparisons, then using non-standard units.</li> </ul>	<p>Performing simple tests</p> <ul style="list-style-type: none"> <li>The children use practical resources provided to gather evidence to answer questions generated by themselves or the teacher.</li> <li>They carry out: tests to classify; comparative tests; pattern seeking enquiries; and make observations over time.</li> </ul> <p>Identifying and classifying</p> <ul style="list-style-type: none"> <li>Children use their observations and testing to compare objects, materials and living things.</li> <li>They sort and group these things, identifying their own criteria for sorting.</li> <li>They use simple secondary sources (such as identification sheets) to name living things.</li> <li>They describe the characteristics they used to identify a living thing.</li> </ul>	<p>Gathering and recording data to help in answering questions</p> <ul style="list-style-type: none"> <li>The children record their observations e.g. using photographs, videos, drawings, labelled diagrams or in writing.</li> <li>They record their measurements e.g. using prepared tables, pictograms, tally charts and block graphs.</li> <li>They classify using simple prepared tables and sorting rings.</li> </ul>	<p>Using their observations and ideas to suggest answers to questions</p> <p>The children recognise ‘biggest and smallest’, ‘best and worst’ etc. from their data.</p> <p>Using their observations and ideas to suggest answers to questions</p> <ul style="list-style-type: none"> <li>Children use their experiences of the world around them to suggest appropriate answers to questions</li> <li>They are supported to relate these to their evidence e.g. observations they have made, measurements they have taken or information they have gained from secondary sources.</li> </ul>

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Year 2		
National Curriculum Statements	Possible Outdoor Activities	Resources
Living things and their habitats		
Explore and compare the differences between things that are living, dead, and things that have never been alive.	Pupils explore the playground or local environment to find/collect things that are living, dead and never been alive. Take photos and pupils annotate and make comparisons between the objects found.	Bags, trays to collect items, pooters, brushes
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	Pupils talk about how the living things in the playground or local environment are suited to the habitat in which they found them including bug hotel, under logs, in the pond, in the hedgerow etc.  Pupils to create habitats/bug hotels to show understanding of habitats/conditions for minibeasts.  Pupils to collect data about the living things found in the wildlife and link to maths.  Pupils identify what the animals they found in the playground or local environment eat and how the habitat provides shelter.	Clipboards for survey of animals  Materials for bug hotels
Identify and name a variety of plants and animals in their habitats, including micro-habitats.	Pupils use identification charts to name plants and animals found in the playground or local environment.  Pupils to go on minibeast hunt in wildlife garden in summer months and discuss their findings. Collect minibeasts by placing sheet under a tree and shaking tree then use pooters for closer look.  Pupils name plants and animals found in micro-habitats such as in the pond, under a log, in a bush or in the soil. Take out iPads to research animals/plants found. (PI@ntnet app for identifying plants).	Identification charts relevant to our school grounds  Magnifying glasses, pooters, brushes  Animal/minibeast identification charts  iPads PI@ntnet app
Plants		
Observe and describe how seeds and bulbs grow into mature plants.	Pupils plant a range of seeds and bulbs at the correct time of year. Use vegetable beds and other flower beds identified in wildlife garden.  Pupils observe and take measurements of the growth of the plants from the seeds and bulbs planted.  The pupils gather seeds for future pupils to plant and observe/sketch/discuss the seeds they have collected.	Gardening calendar Seeds, bulbs Tape measures Sketchbooks
Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.	Pupils follow the instructions to plant the seeds and bulbs correctly e.g. correct spacing, depth, suitable amount of light, inside or outside.  Pupils could plant sunflower seeds to investigate growing conditions. Place plants in different conditions and locations around school grounds.  The pupils observe and water the plants to encourage them to grow and stay healthy.	Range of seeds/bulbs Sunflower seeds, pots, soil School gardening calendar
Use of everyday materials		
Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses	Pupils talk about objects in the playground or local environment and identify the materials they are made from and how this makes them appropriate for use outside. Start activity indoors to identify materials then outdoors pupils may notice less different types of materials as they need to be suitable for purpose outdoors e.g. waterproof.  Pupils to build something outside that needs to be waterproof and choose suitable materials (cross-curricular link for the object that needs to be waterproof). Pupils could then test this on a larger scale in the wildlife garden by building a shelter which needs to be waterproof.	Range of materials