

Year: 1/2 Subject: Science		Topic Question: <i>What grows in your garden?</i>	Term - Autumn 1	Curriculum - A
PoS:				
Prior Knowledge - Children will explore the natural world around them, making observations and drawing pictures of animals and plants - They will know some similarities and differences between the natural world around them and contrasting environments - They will draw on their experiences and what has been read in class - They understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.		Key Vocabulary Leaf, flower, blossom, petal, fruit, berry, root, seed, trunk, branch, stem, bark, stalk, bud Names of trees in the local area Names of garden and wild flowering plants in the local area	Outcome Children produce a short film explaining what they have learnt about plants in the school grounds.	
Future Learning - Observe and describe how seeds and bulbs grow into mature plants. (Y2 - Plants) - Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. (Y2 - Plants) - Identify and name a variety of plants and animals in their habitats, including microhabitats. (Y2 - Living things and their habitats) - Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers. (Y3 - Plants) - Investigate the way in which water is transported within plants. (Y3 Plants)		Stimulus Planting and growing in the school grounds First hand experiences (enrichment) Practical work and plant hunts in the school grounds. Links with fieldwork in geography.	World of Work Gardener, farmer	
National Curriculum PoS - 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. Working Scientifically Pupils will learn the following through the teaching of the content: - Asking simple questions and recognising that they can be answered in different ways. - Observing closely, using simple equipment - Performing simple tests - Identifying and classifying - Using their observations and ideas to suggest answers to questions - Gathering and recording data to help in answering questions.	Key Knowledge		Possible evidence	
	Growing locally, there will be a vast array of plants which all have specific names. These can be identified by looking at the key characteristics of the plant. Plants have common parts, but they vary between the different types of plants. Some trees keep their leaves all year while other trees drop their leaves during autumn and grow them again during spring.		- Can name trees and other plants that they see regularly - Can describe some of the key features of these trees and plants e.g. the shape of the leaves, the colour of the flower/blossom - Can point out trees which lost their leaves and those that kept them the whole year - Can point to and name the parts of a plant, recognising that they are not always the same e.g. leaves and stems may not be green	
	Application of Key Skills		Possible evidence	
		- Make close observations of leaves, seeds, flowers etc. - Compare two leaves, seeds, flowers etc. - Classify leaves, seeds, flowers etc. using a range of characteristics. - Identify plants by matching them to named images. - Make observations of how plants change over a period of time. - When further afield, spot plants that are the same as those in the local area studied regularly, describing the key features that helped them.	- Can sort and group parts of plants using similarities and differences - Can use simple charts etc. to identify plants - Can collect information on features that change during the year - Can use photographs to talk about how plants change over time	

Year: 1/2 Subject: Science PoS: Seasonal Changes Y1	Topic Question: <i>What should I wear today?</i>		Taught termly as the seasons change Curriculum - A 
Prior Knowledge - Explore the natural world around them, making observations and drawing pictures of animals and plants. - 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. - Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.		Key Vocabulary - Weather (sunny, rainy, windy, snowy etc.) - Seasons (winter, summer, spring, autumn) - Sun, sunrise, sunset, day length	Outcome Seasons book
Future Learning - Recognise that light from the sun can be dangerous and that there are ways to protect their eyes. (Y3 - Light) - Use the idea of the Earth's rotation to explain day and night and the apparent movement of the Sun across the sky. (Y5 - Earth and space)		Stimulus Outdoor learning First hand experiences (enrichment) Collect examples from plants and experiences of how the seasons change.	World of Work Weather forecaster, gardener
National Curriculum PoS - Observe changes across the four seasons - Observe and describe weather associated with the seasons and how day length varies Working Scientifically - Asking simple questions and recognising that they can be answered in different ways - Observing closely, using simple equipment - Performing simple tests - Identifying and classifying - Using their observations and ideas to suggest answers to questions - Gathering and recording data to help in answering questions	Key Knowledge		Possible evidence
	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.		- Can name the four seasons and identify when in the year they occur - Can describe weather in different seasons over a year - Can describe days as being longer (in time) in the summer and shorter in the winter - Can describe other features that change through the year
	Application of Key Skills		Possible evidence
	- Collect information about the weather regularly throughout the year. - Present this information in tables 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.		- Use the evidence gathered to describe the general types of weather and changes in day length over the seasons. - Use their evidence to describe some other features of their surroundings, e.g. themselves, animals, plants that change over the seasons - Demonstrate their knowledge in different ways e.g. making a weather forecast video, writing seasonal poetry, creating seasonal artwork

Year: 1 and 2 Subject: Science PoS: Plants	Topic Question: How can I be a super gardener?		Term - Autumn 2 Curriculum - A 
Prior Knowledge - 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.		Key Vocabulary Leaf, flower, blossom, petal, fruit, berry, root, seed, trunk, branch, stem, bark, stalk, bud light, shade, sun, warm, cool, water, grow, healthy	Outcome Instructions to care for a plant
Future Learning - Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers. (Y3 - Plants) - Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant. (Y3 - Plants) - Investigate the way in which water is transported within plants. (Y3 - Plants) - Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. (Y3 - Plants)		First hand experiences (enrichment) Planting and growing seeds and bulbs Testing conditions needed for growth using small plants Exploring and collecting seeds.	World of Work A farmer or market gardener
National Curriculum PoS - 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. Working Scientifically - Asking simple questions and recognising that they can be answered in different ways - Observing closely, using simple equipment - Performing simple tests - Identifying and classifying - Using their observations and ideas to suggest answers to questions - Gathering and recording data to help in answering questions	Key Knowledge		Possible evidence
	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.		- Can describe how plants that they have grown from seeds and bulbs have developed over time - Can identify plants that grew well in different conditions
	Application of Key Skills		Possible evidence
	- 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. - Make close observations and measurements of their plants growing from seeds and bulbs. - Make comparisons between plants as they grow.		- Can spot similarities and difference between bulbs and seeds - Can nurture seeds and bulbs into mature plants identifying the different requirements of different plants

Year: 1/2 Subject: Science		Topic Question: <i>How are animals different to us?</i>		Term - Spring 1	Curriculum - A	
PoS: Animals including humans Y1						
<u>Prior Knowledge</u> - Children will explore the natural world around them, making observations and drawing pictures of animals and plants - They will know some similarities and differences between the natural world around them and contrasting environments			<u>Key Vocabulary</u> Head, body, eyes, ears, mouth, teeth, leg, tail, wing, claw, fin, scales, feathers, fur, beak, paws, hooves Names of animals experienced first-hand from each vertebrate group		<u>Outcome</u> Lift the flap ‘Who Am I?’	
<u>Future Learning</u> - 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 - Living things and their habitats) - Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals. (Y6 - Living things and their habitats) - Give reasons for classifying plants and animals based on specific characteristics. (Y6 - Living things and their habitats)			<u>Stimulus</u> Bird Watching First hand experiences (enrichment) Zoo lab visit? Bring a pet to school?		<u>World of Work</u> Zoo keeper, naturalist	
<u>National Curriculum PoS</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). <u>Working Scientifically</u> - Asking simple questions and recognising that they can be answered in different ways - Observing closely, using simple equipment - Performing simple tests - Identifying and classifying - Using their observations and ideas to suggest answers to questions - Gathering and recording data to help in answering questions		Key Knowledge		Possible evidence		
		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.		- Can name a range of animals which includes animals from each of the vertebrate groups - Can describe the key features of these named animals - Can label key features on a picture/diagram - Can write descriptively about an animal - Can write a What am I? riddle about an animal - Can describe what a range of animals eat		
		Application of Key Skills		Possible evidence		
		- Make first-hand, close observations of animals from each of the groups. - Compare two animals from the same or different groups. - Classify animals using a range of features. - Identify animals by matching them to named images. - Classify animals according to what they eat.		- Can sort and group animals using similarities and differences - Can use simple charts etc. to identify unknown animals - Can create a drawing of an imaginary animal labelling its key features - Can use secondary resources to find out what animals eat, including talking to experts e.g. pet owners, zookeepers etc. - Can use first-hand close observations to make detailed drawings		
		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. 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.				

Year: 1/2 Subject: Science PoS: Animals including humans Y1		Topic Question: <i>How do I know what is happening around me?</i>	Term - Spring 2	Curriculum - A 
Prior Knowledge - Children will explore the natural world around them, making observations and drawing pictures of animals and plants - They will know some similarities and differences between the natural world around them and contrasting environments		Key Vocabulary - Parts of the body including those linked to PSHE teaching (see joint document produced by the ASE and PSHE Association) - Senses – touch, see, smell, taste, hear, fingers (skin), eyes, nose, ear and tongue	Outcome Create an activity using one sense	
Future Learning - 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 - Living things and their habitats) - Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals. (Y6 - Living things and their habitats) - Give reasons for classifying plants and animals based on specific characteristics. (Y6 - Living things and their habitats)		Stimulus Animals including humans Y1 First hand experiences (enrichment)	World of Work Audiologist, optician	
National Curriculum PoS - Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. Working Scientifically - Asking simple questions and recognising that they can be answered in different ways - Observing closely, using simple equipment - Performing simple tests - Identifying and classifying - Using their observations and ideas to suggest answers to questions - Gathering and recording data to help in answering questions	Key Knowledge		Possible evidence	
	Humans have key 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.		- Can play and lead ‘Simon says’ - During PE lessons, can follow instructions involving parts of the body	
	Application of Key Skills		Possible evidence	
	- Make first-hand close observations of parts of the body e.g. hands, eyes. - Compare two people. - Take measurements of parts of their body. - Compare parts of their own body. - Look for patterns between people e.g. Do people with big hands have big feet? - Classify people according to their features. - 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?		- Can use first-hand close observations to make detailed drawings - Can name body parts correctly when talking about measurements and comparisons e.g. “My arm is x straws long.” “My arm is x straws long and my leg is y straws long. My leg is longer than my arm.” “We both have hands, but his are bigger than mine.” “These people have brown eyes and these have blue.” - Can talk about their findings from investigations using appropriate vocabulary e.g. “My fingers are much better at feeling than my toes” “We found that the crisps all taste the same.”	

Year: 1/2 Subject: Science PoS: Living Things and Their Habitat Y2		Topic Question: <i>How can you tell if something is alive?</i>	Term - Summer 1	Curriculum - A 
<u>Prior Knowledge</u> Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.		<u>Key Vocabulary</u> Living, dead, never been alive	<u>Outcome</u> Poster about signs of life	
<u>Future Learning</u> - Recognise that living things can be grouped in a variety of ways. (Y4 - Living things and their habitats) - Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment. (Y4 - Living things and their habitats)		<u>Stimulus</u> Animal remains <u>First hand experiences (enrichment)</u> Looking for objects that are living, dead and have never lived in the outdoor environment	<u>World of Work</u> Vet, tree surgeon	
<u>National Curriculum PoS</u> - Explore and compare the differences between things that are living, dead, and things that have never been alive <u>Working Scientifically</u> - Asking simple questions and recognising that they can be answered in different ways - Observing closely, using simple equipment - Performing simple tests - Identifying and classifying - Using their observations and ideas to suggest answers to questions - Gathering and recording data to help in answering questions	Key Knowledge		Possible evidence	
	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).		Can find a range of items outside that are living, dead and never lived	
	Application of Key Skills		Possible evidence	
	Explore the outside environment regularly to find objects that are living, dead and have never lived.		Can sort into living, dead and never lived	

Year: 1/2 Subject: Science PoS: Living Things and their Habitats Y2		Topic Question/Title: <i>What lives in a place like this?</i>	Term - Summer 2	Curriculum - A	
Prior Knowledge - Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. (Y1 - Plants) - Identify and describe the basic structure of a variety of common flowering plants, including trees. (Y1 - Plants) - Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. (Y1 - Animals including humans) - Identify and name a variety of common animals that are carnivores, herbivores and omnivores. (Y1 - Animals including humans) - Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets). (Y1 – Animals, including humans) - Observe changes across the four seasons. (Y1 - Seasonal changes)		Key Vocabulary suited, suitable, basic needs, food, food chain, shelter, move, feed Names of local habitats – woodland, garden, pond Names of micro-habitats - under logs, in bushes, in the long grass		Outcome Bug identification chart	
Future Learning - Recognise that living things can be grouped in a variety of ways. (Y4 - Living things and their habitats) - Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment. (Y4 - Living things and their habitats) - Recognise that environments can change and that this can sometimes pose dangers to living things. (Y4 - Living things and their habitats) - Construct and interpret a variety of food chains, identifying producers, predators and prey. (Y4 - Animals, including humans)		Stimulus Bug hunt First hand experiences (enrichment) Museum loans of different habitats and animals		World of Work Bee keeper, biologist	
National Curriculum PoS - 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 micro-habitats - 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		Key Knowledge 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.		Possible evidence - Can name a range of animals and plants that live in a habitat and micro-habitats that they have studied - Can talk about how the features of these animals and plants make them suitable to the habitat - Can talk about what the animals eat in a habitat and how the plants provide shelter for them - Can construct a food chain that starts with a plant and has the arrows pointing in the correct direction	
Working Scientifically - Asking simple questions and recognising that they can be answered in different ways - Observing closely, using simple equipment - Performing simple tests - Identifying and classifying - Using their observations and ideas to suggest answers to questions - Gathering and recording data to help in answering questions		Application of Key Skills - Observe animals and plants carefully, drawing and labelling diagrams. - Create simple food chains for a familiar local habitat from first-hand observation and research. - Create simple food chains from information given e.g. in picture books (Gruffalo etc.).		Possible evidence - Can give key features that mean the animal or plant is suited to its micro-habitat - Using a food chain can explain what animals eat - 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	