

SCIENCE CURRICULUM AND PROGRESSION

Children are encouraged to be curious and ask questions about what they notice. They are helped to develop their understanding of scientific ideas, knowledge and vocabulary by using different types of scientific enquiry to answer questions.

YEAR GROUP	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
N	<p>THIS IS ME!</p> <ul style="list-style-type: none"> *Understand some ‘why’ questions like: ‘Why do you think the caterpillar got so fat’. * Begin to understand the need to respect and care for the natural environment and all living things *Use all of their senses in hands-on exploration of natural materials. *Explore collections of materials with similar and/or different properties <p>Caring for the Nursery environment. Looking after toys/books/equipment Talking about home Forest Schools: explore freely outdoors Collect natural materials to investigate and talk about</p>	<p>SPECIAL TIMES</p> <ul style="list-style-type: none"> *Understand some ‘why’ questions like: ‘Why do you think the caterpillar got so fat?’ *Make healthy choices about food, drink, activity and tooth-brushing. * Begin to understand the need to respect and care for the natural environment and all living things *Use all of their senses in hands-on exploration of natural materials. *Explore collections of materials with similar and/or different properties *Begin to make sense of their own life story and family’s history. <p>Forest Schools: explore freely outdoors Collect natural materials to investigate and talk about. Caring for the Nursery Environment- looking after the grounds, preparing for winter (bug house/bird feeders etc); using natural resources (leaves) to help ‘feed’ the earth/ground. Discuss how this helps. Make leaf mould. Looking after toys/books/equipment Baking – how does the process of mixing raw ingredients & baking, produce the end product of a cake/jam etc. Talking about home Birthdays – how have I changed since I was a baby? Talk about photos/memories</p>	<p>ONCE UPON A TIME</p> <ul style="list-style-type: none"> *Understand some ‘why’ questions like: ‘Why do you think the caterpillar got so fat?’ *Make healthy choices about food, drink, activity and tooth-brushing. *Begin to make sense of their own life story and family’s history <p>Birthdays – how have I changed since I was a baby? Caring for the Nursery environment. Looking after toys/books/equipment Talking about home Baking – oat related recipes, porridge, flapjacks– ingredients needed – how do they change? Talk about bears.</p>	<p>OUT OF THIS WORLD</p> <ul style="list-style-type: none"> *Talk about what they see, using a wide vocabulary. *Explore how things work. *Explore and talk about different forces they feel *Talk about the differences between materials and changes they notice. * Begin to understand the need to respect and care for the natural environment and all living things. <p>Rocket/flying saucer discovery. Talk about find. What is the message left behind? 5 Little Men in a flying saucer reminding us to observe and care for our environment...and the World. Revisit the needs of our immediate environment. Has anything changed? Look for signs of new life. Observe changes. What is happening and why? How can we help? Plant young plants/vegetable etc.</p>	<p>NATURE DETECTIVES/MUDDY FACES, AMAZING PLACES</p> <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. *Talk about what they see, using a wide vocabulary. <p>Building worm farm Mini-beasts Helping hands outside – planting seeds and bulbs Watering flowers and plants. Care for animals and take part in science exploration of animal life cycles (caterpillars or chick eggs) Short walks/visits around the local area – shops, the park etc. Caterpillar/butterfly</p>	<p>PIRATES/A LIFE ON THE OCEAN WAVE</p> <ul style="list-style-type: none"> *Talk about what they see, using a wide vocabulary. *Explore how things work. *Explore and talk about different forces they feel *Talk about the differences between materials and changes they notice <p>Trip to the seaside to explore rock pools and the beach. Beach pollution and the impact this has on the environment/seas/habitats/wildlife.</p>
R	<p>MARVELLOUS ME <u>Communication & Language</u></p> <ul style="list-style-type: none"> *Learn new vocabulary. *Articulate their ideas and thoughts in well-formed sentences. *Describe events in some detail. *Use talk to explain how things work and why they might happen *Use new vocabulary in different contexts. <p>Skittles – exploring changes that happen when we add water.</p>	<p>JULIA DONALDSON <u>Communication & Language</u></p> <ul style="list-style-type: none"> *Learn new vocabulary. *Ask questions to find out more and to check what has been said to them. *Articulate their ideas and thoughts in well-formed sentences. *Describe events in some detail. *Use talk to explain how things work and why they might happen *Use new vocabulary in different contexts. <p><u>Understanding the World</u></p> <ul style="list-style-type: none"> *Explore the natural world around them. *Describe what they see, hear and feel while they are outside. *Understand the effect of changing seasons on the natural world around them. *Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. (The Natural World ELG) <p>Melting - looking at changes Freezing - looking at changes Making potions Exploring with cornflour Exploring shadows</p>	<p>THE WORLD AROUND US <u>Communication & Language</u></p> <ul style="list-style-type: none"> *Learn new vocabulary. *Ask questions to find out more and to check what has been said to them. *Articulate their ideas and thoughts in well-formed sentences. *Describe events in some detail. *Use new vocabulary in different contexts. <p><u>Personal, Social & Emotional Development</u></p> <ul style="list-style-type: none"> *Know and talk about the different factors that support their overall health and wellbeing: <ul style="list-style-type: none"> - healthy eating * Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices (Managing Self ELG) <p>Healthy stir fry, discuss hygiene when cooking</p>	<p>TRADITIONAL TALES <u>Communication & Language</u></p> <ul style="list-style-type: none"> *Learn new vocabulary. *Ask questions to find out more and to check what has been said to them. *Articulate their ideas and thoughts in well-formed sentences. *Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen *Use new vocabulary in different contexts. *Make comments about what they have heard and ask questions to clarify their understanding (Listening, attention & understanding ELG) <p><u>Personal, Social & Emotional Development</u></p> <ul style="list-style-type: none"> *Know and talk about the different factors that support their overall health and wellbeing: <ul style="list-style-type: none"> - healthy eating * Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices (Managing Self ELG) <p>Making soup and healthy food to help Grandma feel better Exploring different materials to make houses Sorting materials, e.g., glass, plastic</p>	<p>IN THE GARDEN <u>Communication & Language</u></p> <ul style="list-style-type: none"> *Learn new vocabulary. *Ask questions to find out more and to check what has been said to them. *Articulate their ideas and thoughts in well-formed sentences. *Describe events in some detail. *Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen *Use new vocabulary in different contexts. *Make comments about what they have heard and ask questions to clarify their understanding (Listening, attention & understanding ELG) <p><u>Personal, Social & Emotional Development</u></p> <ul style="list-style-type: none"> *Know and talk about the different factors that support their overall health and wellbeing: <ul style="list-style-type: none"> - healthy eating * Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices (Managing Self ELG) <p><u>Understanding the World</u></p> <ul style="list-style-type: none"> *Explore the natural world around them. *Describe what they see, hear and feel while 	<p>DINOSAURS <u>Communication & Language</u></p> <ul style="list-style-type: none"> *Learn new vocabulary. *Ask questions to find out more and to check what has been said to them. *Articulate their ideas and thoughts in well-formed sentences. *Use new vocabulary in different contexts. *Make comments about what they have heard and ask questions to clarify their understanding (Listening, attention & understanding ELG) <p><u>Understanding the World</u></p> <ul style="list-style-type: none"> * Explore the natural world around them, making observations and drawing pictures of animals and plants (The Natural World 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. (The Natural World ELG) *Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. (The Natural World ELG) <p>Sort plant eaters and meat eaters</p>

		Begin to look at how to weather might be changing from Autumn to Winter. Make own chocolate lollies.			<p>they are outside.</p> <p>*Understand the effect of changing seasons on the natural world around them.</p> <p>* Explore the natural world around them, making observations and drawing pictures of animals and plants (<i>The Natural World ELG</i>)</p> <p>*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. (<i>The Natural World ELG</i>)</p> <p>*Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. (<i>The Natural World ELG</i>)</p> <p>Life cycle of butterfly Growing flowers that attract butterflies Looking after living things - don't stand on plants, don't pull up plants etc Making bread Looking signs of spring – what changes are there?</p>	Walk in the local area looking for signs of summer
1	<p>INTO THE WOODS</p> <p><u>Plants</u></p> <p>* identify and name a variety of common plants, including garden plants, wild plants and trees, and those classified as deciduous and evergreen</p> <p>* identify and describe the basic structure of a variety of common flowering plants, including roots, stem/trunk, leaves and flowers.</p> <p><u>Seasonal changes</u></p> <p>* observe changes across the four seasons</p> <p>* observe and describe weather associated with the seasons and how day length varies</p> <p>Planting vegetables to use in DT</p> <p>Using plants, we have planted to look at structure of a plant</p> <p>Weather diary</p>	<p>TELL ME A STORY</p> <p><u>Seasonal changes</u></p> <p>* observe changes across the four seasons</p> <p>* observe and describe weather associated with the seasons and how day length varies</p> <p>Weather diary</p>	<p>MUCK, MESS AND MIXTURES</p> <p><u>Everyday materials</u></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>Heavy/light, waterproof/not waterproof, textures</p> <p>Naming materials, finding objects made from different materials</p> <p><u>Seasonal changes</u></p> <p>* observe changes across the four seasons</p> <p>* observe and describe weather associated with the seasons and how day length varies</p> <p>Weather diary</p> <p><u>Animals. Including humans</u></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>senses to explore tastes, smells etc</p>	<p>PAWS, CLAWS AND WHISKERS</p> <p><u>Seasonal changes</u></p> <p>* observe changes across the four seasons</p> <p>* observe and describe weather associated with the seasons and how day length varies</p> <p><u>Animals, including humans</u></p> <p>* identify and name a variety of common animals that are birds, fish, amphibians, reptiles, mammals and invertebrates</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 (birds, fish, amphibians, reptiles, mammals and invertebrates, and including pets)</p> <p>Weather diary</p> <p>Name types of animals, sort according to common features</p>	<p>EXPLORATION AND DISCOVERY</p> <p><u>Seasonal changes</u></p> <p>*observe changes across the four seasons</p> <p>* observe and describe weather associated with the seasons and how day length varies</p> <p><u>Everyday materials</u></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>Using materials in DT</p> <p>Weather diary</p>	<p>THE UK</p> <p><u>Seasonal changes</u></p> <p>*observe changes across the four seasons</p> <p>* observe and describe weather associated with the seasons and how day length varies</p> <p><u>Animals. Including humans</u></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>Label body parts</p> <p>Weather diary</p>
2	<p>ME AND MY COMMUNITY</p> <p><u>Animals, including Humans</u></p> <p>*describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.</p> <p>*find out about and describe the basic needs of animals, including humans, for survival (water, food and air)</p> <p>Health and hygiene</p> <p>Looking at exercise keeps us healthy</p>	<p>HORRIBLE HISTORY</p> <p><u>Use of Everyday Materials</u></p> <p>*identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses</p> <p>Healthy eating, investigating mould on food</p> <p>Looking at effect of unhealthy diet</p> <p>Flammable materials investigations</p> <p>Insulating materials investigations</p>	<p>WHERE THE WILD THINGS ARE</p> <p><u>All Living things and their habitats</u></p> <p>*explore and compare the differences between things that are living, dead, and things that have never been alive</p> <p>* 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</p> <p>* identify and name a variety of plants and animals in their habitats, including micro-habitats</p> <p>*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><u>Animals, including Humans</u></p> <p>*notice that animals, including humans, have offspring which grow into adults</p> <p>*find out about and describe the basic needs of animals, including humans, for survival (water, food and air)</p> <p>Food chains, habitats, life cycles</p> <p>How to tell if something is living or never been alive</p> <p>Looking at what humans need to survive</p> <p>Linking to Geog and habitats in relation to hot and cold climates</p> <p>Look at how animals adapt to changing world</p>	<p>HOME AND AWAY</p> <p><u>Plants</u></p> <p>*observe and describe how seeds and bulbs grow into mature plants</p> <p>*find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.</p> <p>Planting beans, nasturtiums, vegetables and spring bulbs</p> <p>investigate how seeds grow</p> <p>Look at specific habitats in another country and how and why things live and grow there and how they change as the country changes</p>	<p>WEIRD, WACKY AND WONDERFUL</p> <p><u>All Living things and their habitats</u></p> <p>USE OF EVERYDAY MATERIALS</p> <p>*identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses</p> <p><i>Investigative science</i></p>	

