



Puttenham C of E Infant School Progression in Science

	Working Scientifically	Living things and their habitats	Plants	Animals, including humans
Reception <i>Please see Development Matters for areas in Physical and UTW.</i>	Ask questions Talk about changes Compare and contrast similarities and differences ELG: (Communication and Language) Make comments about what they have heard and ask questions to clarify their understanding.	ELG: (Understanding the World) • 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. ELG: (Personal, Social and Emotional Development) Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices.		
Year 1	During years 1 and 2, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content: <ul style="list-style-type: none"> • asking simple questions and recognising that they can be answered in different ways • observing closely, teaching how to use simple equipment (links to Maths – Shape, space and measure, to Computing) • asking questions, planning and performing simple tests led by the teacher, predicting and discussing the results • identifying, sorting and describing 		<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"> • 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"> • using their observations and ideas to suggest answers to questions • gathering and recording data to help in answering questions 			
Year 2	<ul style="list-style-type: none"> • asking simple questions based on their prior knowledge and understanding. To recognise that they can be answered in different ways • observing closely, teaching how to use simple equipment (links to Maths – Shape, space and measure, to Computing) using standard measurements • asking questions, planning and performing simple tests independently introducing fair testing, predicting and discussing the results • identifying, sorting, observing, describing, comparing and classifying into categories and giving reasons • using their observations and ideas to suggest answers to questions and making conclusions • gathering and recording data to help in answering questions and independently recording their findings 	<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 • identify and name a variety of plants and animals in their habitats, including microhabitats • 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 	<ul style="list-style-type: none"> • 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 	<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

	Materials	Seasonal Changes		
Year 1	Everyday materials Pupils should be taught to: <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"> observe changes across the 4 seasons observe and describe weather associated with the seasons and how day length varies 		
Year 2	Uses of everyday materials <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 for particular uses find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching 			

	EYFS	Rabbit Y1 <i>See also NC Working Scientifically</i>	Fox Y1/2 <i>See also NC Working Scientifically</i>	Otter Y2 <i>See also NC Working Scientifically</i>
Autumn	<p>Senses – describe what we can see, hear, feel, touch and smell</p> <p>Basic hygiene and personal needs (general hand washing and classroom hygiene – inc Nurse visit, teeth cleaning)</p> <p>Seasonal changes- Autumn</p> <p>Animals – <i>links to hibernation and nocturnal animals</i></p> <p>Light and dark– light travelling through transparent material and objects casting a shadow</p>	<p>Animals including humans - Body parts & senses (<u>senses testing</u>)</p> <p>Identify and name common animals, animal classification and structure</p> <p>Basic hygiene and personal needs – inc general hand washing and classroom hygiene</p> <p>Materials <i>introduction linked to Three Little Pigs</i></p> <p>Seasonal changes - Autumn and how day length varies</p>	<p>Animals including humans - Body parts & senses. (Year 2 design experiment for Y1 - <u>taste testing</u>)</p> <p>Importance of exercise, different types of food, hygiene, basic needs for survival. <u>How does exercise change our heart rate? Hand washing bread experiment</u></p> <p>Materials - identification of materials, man-made, natural, object x material, name, simple properties, uses of materials, compare. <u>Y1: Testing waterproof materials</u></p> <p>Y2: Can we change objects made from some materials can be changed by squashing, bending, twisting and stretching? <u>Bread making, (clay in art)</u></p> <p>Seasonal changes – Autumn and how day length varies</p>	<p>Animals including humans - Importance of exercise, different types of food, hygiene, basic needs for survival <u>How does exercise change our heart rate? Food diaries and five a day Pepper and soap experiment</u></p> <p>Materials - everyday materials – their uses, identification & properties. <u>Experiment linked to Traction Man</u></p> <p>Can we change objects made from some materials can be changed by squashing, bending, twisting and stretching? <u>Bread making, (clay in art)</u></p>
Spring	<p>Materials</p> <p>Explore and sort a collection of materials with similar/different properties. Observe and interact with natural processes – ice melting</p>	<p>Materials – identification of materials, man-made, natural, object x material, name, simple properties, uses of materials, compare. <u>Testing materials to keep us warm</u></p> <p>Seasons and its changes – Winter and how day length varies Spring and how day length varies</p>	<p>Animals including humans - Y1: Identify and name common animals, animal classification and structure Y2: offspring, basic needs for survival</p> <p>Living things and their habitats – Y2: living x dead things, habitats, simple food chain & sources of food</p> <p>Seasons and its changes- Winter and how day length varies Spring and how day length varies</p>	<p>Living things and their habitats –living x dead things, habitats, simple food chain & sources of food</p> <p>Animals including humans - offspring, basic needs for survival</p>

Summer	<p>Growing - Life cycle of plants and animals. <i>Making observations and comparing and contrasting plants in different areas around the school -</i> <u>Growing plants – allotment and Hedgehog garden</u></p> <p><i>ELG statement - Explore the natural world around them, making observations and drawing pictures of animals and plants</i> <i>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> <i>Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter</i></p>	<p>Plants – identify and name a variety of common wild and garden plants, including deciduous and evergreen trees in our local area. Look at basic structure of them. <u>Growing plants and what they need. Growing in the allotment.</u></p> <p>Seasons and its changes – Summer and how day length varies</p>	<p>Plants – Y1: parts and structures of a plant, identify and name common plants/trees. Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees</p> <p>Y2: Observe growth of seeds and bulbs. What do plants need to stay healthy. What happens when they die down? (seed pods etc)</p> <p><u>Growing plants and what they need.</u> <u>What is Growing in the allotment - observe and describe.</u></p> <p>Living things and their habitats – Y2: habitats</p> <p>Seasons and its changes - Summer and how day length varies</p>	<p>Plants – Observation of seeds and bulbs growing. What do plants need to stay healthy? What happens when they die down? (seed pods etc)</p> <p><u>Growing plants and what they need.</u> <u>Take an element away. Growing in the allotment - observe and describe.</u></p>
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