

Great Ponton CE Primary School

Science Long Term Overview 2019-2020

'To inspire curiosity in the world around us.'

Year Group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS Understanding the world	'All About Me' People and communities Own likes/dislikes and becoming sensitive to those of others. Similarities and differences between themselves and others.	'Our Beautiful World' The World Similarities and differences in relation to places, objects, materials and living things. Talk about the features of their own immediate environment and how environments might vary from one another.	'My Life' Technology Recognise a range of technology/purposes. People and Communities children talk about past and present events in their own lives and in the lives of family members, and among families, communities and traditions.	'Special people and times' Talk about past and present events in their own lives and in the lives of family members.	'Special Places and our senses' People and Communities Know about similarities and differences between themselves and others, and among families, communities and traditions. Technology Recognise a range of technology/purposes.	'Our Living World' The World Observations and showing care for animals and plants. Explain why some things occur and talk about changes.
Year 1/2	Investigations Focus on building working Scientifically skills	Plants <u>Year 1</u> Identify flowers, plants and trees Structure of a plant. <u>Year 2</u> Seeds/plant growing. Needs of a plant.	Seasonal Changes Observe changes across the four seasons, focus on Winter/Spring. Observe and describe weather associated with the seasons and how day length varies.	Everyday Materials <u>Year 1</u> Distinguish between objects/materials. Name everyday materials. Describe properties and group accordingly. <u>Year 2</u>	Investigations Gravity themed/ Working Scientifically Skills.	Animals including humans <u>Year 1</u> Identify and name a variety of common animals, compare their structure and state if they are carnivores, herbivores or omnivores

				Identify and compare the suitability materials. Investigate how the shape of materials can be changed.		Label the body parts, identify senses. <u>Year 2</u> Animal and human offspring. Basic needs of humans and animals. Importance nutrition and exercise.
Year 3/4	Animals including humans Digestion Nutrition Skeleton and muscles teeth Food chains	Rocks Identify rocks and compare on physical properties. How soil/ fossils are formed.	Forces and magnets How things move on different surfaces. Magnetic forces. Grouping magnetic items/identifying magnetic materials. Poles, attractive and repelling.		Light Needed for sight. Darkness absence of light. Reflections. Sun dangers. How shadows form and patterns in the way that the size of shadows change. Make some links to electricity.	
Year 5/6	Electricity Circuit symbols/diagrams, reasons for changes in a circuit when variables are changed. Electrical safety.	Animals including humans. The circulatory system, the effect of exercise and drugs on the body investigations.	Animals including humans: Human/animal nutrition, D&T links-cookery. Study scientific research into the effect of exercise, nutrition and drugs on the body.	Human life cycle Evolution and inheritance. Fossils, changes over time. Reproduction, Adaptation, Evolution.	Light How light travels and objects are seen. Why shadows are cast.	Forces Gravity, air resistance, water resistance and friction. Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.

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EYFS	<p>'All About Me' People and communities Own likes/dislikes and becoming sensitive to those of others. Similarities and differences between themselves and others.</p>	<p>'Our Beautiful World' The World 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.</p>	<p>'My Life' Technology Recognise a range of technology/purposes. People and Communities children talk about past and present events in their own lives and in the lives of family members, and among families, communities and traditions.</p>	<p>'Special people and times' Talk about past and present events in their own lives and in the lives of family members.</p>	<p>'Special Places and our senses' People and Communities They know about similarities and differences between themselves and others, and among families, communities and traditions. Technology Recognise a range of technology/purposes.</p>	<p>'Our Living World' The World Observations and showing care for animals and plants. Explain why some things occur and talk about changes.</p>
Year 1/2	<p>Seasonal Change Observe changes across the four seasons, focus on Summer/ Autumn. Observe and describe weather associated with the seasons and how day length varies.</p>	<p>Plants <u>Year 1</u> Identify flowers, plants and trees Structure of a plant <u>Year 2</u> Seeds/plant growing. Needs of a plant.</p>	<p>Animals including humans <u>Year 1 Objectives</u> Identify and name a variety of common animals, compare their structure and state if they are carnivores, herbivores or omnivores Label body parts, identify senses. <u>Year 2</u> Animal and human offspring. Basic needs of humans and animals. Importance nutrition and exercise.</p>	<p>Living things and their habitats Categorise things living, dead, never alive. Suitability of animal and plant habitats. Microhabitats. Food chains.</p>	<p>Everyday Materials Distinguish between object/material. Name everyday materials. Describe properties and group accordingly. <u>Year 2</u> Identify and compare the suitability materials. Investigate how the shape of materials can be changed.</p>	<p>Materials Investigations Working Scientifically Skills fine-tuned with materials investigations.</p>

<p>Year 3/4</p>	<p>Sound Sounds made with vibrations. Pitch between the pitch, volume- strength of vibrations and distance from object.</p>	<p>Living things and their habitats Grouping living things in a range of ways. Classification keys to help group, identify and name a variety of living things in their local and wider environment. Environmental change/threat to life.</p>	<p>Plants Functions of plant parts. Requirements of a healthy plant and how these vary. Water transportation. Life cycles- pollination, seed formation and seed dispersal.</p>	<p>States of Matter Compare and group materials together, according to whether they are solids, liquids or gases. Observe that some materials change state when they are heated or cooled. The Water Cycle.</p>	<p>Electricity Common appliances. Construct/label simple circuits. Will a circuit work. Switches. Metals- conductors and other insulators.</p>
<p>Year 5/6</p>	<p>Properties and changes in materials Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets. Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic. Mix, dissolve and separate materials. Changing states, reversible/irreversible changes.</p>	<p>Earth and space Describe the movement of the Earth, moon, other planets. Describe the Sun, Earth and Moon as approximately spherical bodies. Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.</p>	<p>Living things and their habitats Differences in the life cycles of a mammal, an amphibian, an insect and a bird. The life process of reproduction in some plants and animals. 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. Give reasons for classifying plants and animals based on specific characteristics.</p>		

