

Science Overview

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Nursery	Aut 1 Me and my family	Aut 2 Celebrations	Spring 1 Traditional Tales	Spring 2 Nursery Rhymes	Summer 1 PWHU & Transport	Summer 2 Growth
Understanding the world strands	<ul style="list-style-type: none"> Use all their senses in hands-on exploration of natural materials. Explore collections of materials with similar and/or different properties. Talk about what they see, using a wide vocabulary. 					
	Begin to understand the need to respect and care for the natural environment and all living things. Explore how things work.	Begin to understand the need to respect and care for the natural environment and all living things.	Talk about the differences between materials and changes they notice.	Understand the key features of the life cycle of a plant and an animal.	Explore how things work.	Plant seeds and care for growing plants. Understand the key features of the life cycle of a plant and an animal.
Reception	Aut 1 All about me/ seasons	Aut 2 Celebrations	Spring 1 Traditional Tales	Spring 2 New Life	Summer 1 Superheroes	Summer 2 At the Seaside
Understanding the world strands	<ul style="list-style-type: none"> Explore the natural world around them. Describe what they see, hear and feel whilst outside. 					
	Understand the effect of changing seasons on the natural world around them.	.		Understand the effect of changing seasons on the natural world around them.		Understand the effect of changing seasons on the natural world around them.
Y1	Everyday Materials Distinguish between an object and the material from which it is made; identify and name a variety of everyday materials,		Using our senses: sensing seasons Observe changes across the 4 seasons; observe and describe weather associated with the seasons and how day length varies.		Plant detectives Identify and name a variety of common wild and garden	Looking at animals Identify and name a variety of common animals including,

	<p>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.</p>		<p>plants, including deciduous and evergreen trees; identify and describe the basic structure of a variety of common flowering plants, including trees.</p>	<p>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.</p>
<p>Seasonal Change- throughout the year</p>				
<p>Year 2</p>	<p><u>Animals including humans/growth</u> 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.</p> <p><u>Living things and habitats</u> Explore and compare the differences between things that are living, dead, and things that</p>	<p><u>Every day Materials</u> Explore the useful properties of materials with a range of investigations involving absorbency and flexibility. Discover which type of kitchen towel or cloth is most effective at mopping up spills; consider why building materials must be absorbent and which ones fit the bill; create artwork by exploring the textures of materials and learn all about wax and how to re-mould it. Identify and compare the suitability of a variety of everyday materials,</p>	<p><u>Plants</u> 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.</p>	

	<p>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</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>including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses</p> <p>Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching</p>				
Year 3	Plants	Animals Inc Humans	Rocks and Fossils		Light	Forces and magnets
Year 4	<p><u>Animals including humans</u></p> <p>The children will cover the digestive system in humans and animals and the functions of teeth. Children will learn more about herbivores, carnivores and omnivores in the context of teeth, digestion and the food chain. In addition, they will extend their understanding of food chains to more complex chains and food webs.</p>	<p><u>Electricity</u></p> <p>Children will learn about what electricity is and how it was discovered. They will identify which appliances use electricity in their homes and how to keep themselves safe. Children will construct circuits, start to create pictorial circuits and conduct an investigation into how easily different types of switches can break and reconnect a circuit.</p>	<p><u>Living things</u></p> <p>The children will explore different ways of identifying, classifying, grouping and sorting living things. They will look recap the differences between vertebrates and invertebrates in more detail. The children will also explore how environmental changes can affect living things.</p>	<p><u>States of matter</u></p> <p>We will explore differences between solids, liquids and gases, classify objects and identify their properties and work scientifically and collaboratively to investigate the weight of a gas. We will cover how water changes state, exploring melting, freezing and condensing as well as a particular focus on evaporation. Finally, the children will learn about the stages of the water cycle.</p>	<p><u>Sound</u></p> <p>We will be looking at how vibrations cause sounds as well as how sound can change pitch and volume. We will be carrying out a series of investigations to learn about how sounds are made. We will also work collaboratively and scientifically to explore sound proofing materials.</p>	<p><u>Scientists and inventors</u></p> <p>The children will learn all about famous inventors which relate to many of the scientific topics they will have covered throughout the year. An example of which is Alexander Graham Bell and his invention of the telephone.</p>
Year 5	<p><u>Earth and Space</u></p> <p>Describe the movement of the</p>	<p><u>Forces</u></p> <p>Explain that unsupported objects</p>	<p><u>Properties and changes of materials</u></p> <p>Compare and group together everyday materials on the basis of their properties</p>		<p><u>Living things and their habitats</u></p>	<p><u>Animals (including humans)</u></p>

	<p>Earth, and other planets, relative to the Sun in the solar system</p> <p>Describe the movement of the Moon relative to the Earth.</p> <p>Describe the Sun, Earth and Moon as approximately spherical bodies</p> <p>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>fall towards the Earth because of the force of gravity acting between the Earth and the falling object</p> <p>Identify the effects of air resistance, water resistance and friction, that act between moving surfaces</p> <p>Recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect</p>	<p>know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution</p> <p>Use knowledge of solids, liquids and gases to decide how mixtures might be separated</p> <p>Give reasons, based on evidence from comparative and fair tests</p> <p>Demonstrate that dissolving, mixing and changes of state are reversible changes</p> <p>Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible</p>		<p>Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird</p> <p>Describe the life process of reproduction in some plants and animals</p>	<p>Describe the changes as humans develop to old age</p>
<p>Year 6</p>	<p>Living things and their habitats – Classifying groups based on observable characteristics</p>	<p>Evolution and Inheritance – How animals have adapted over time to suit their environment</p>	<p>Electricity – Creating circuits and using this knowledge to create a vacuum cleaner</p>	<p>Light – Developing an understating of how light travels</p>	<p>Animals including humans – Exploring the circulatory system and linking this to keeping fit and having an active lifestyle</p>	<p>Revision of all skills through cross curricular activities, application of practical skills through experiment tasks.</p>