



Science Progression Map

Coverage key

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
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Working Scientifically

Nursery	Reception	Year 1	Year 2
Key vocabulary: Explore	Observe Record	Observation Classify Identify Data Equipment Test	Prediction Fair tests Results Analyse
		Ask simple scientific questions	Ask simple and relevant scientific questions
		<div style="display: flex; justify-content: space-around; width: 100%;"> </div>	<div style="display: flex; justify-content: space-around; width: 100%;"> </div>
Explore and respond to different phenomena	To talk about some of the things that have been observed	Know how to use simple equipment to make observations	Know how to use equipment correctly to make careful observations
		<div style="display: flex; justify-content: space-around; width: 100%;"> </div>	<div style="display: flex; justify-content: space-around; width: 100%;"> </div>
	Talks about why things happen and how things work.	To know how to carry out simple tests	To know how to set up and carry out simple tests
		<div style="display: flex; justify-content: space-around; width: 100%;"> </div>	<div style="display: flex; justify-content: space-around; width: 100%;"> </div>
		To know how to identify and classify things	To know how to identify and classify things looking at similarities and differences
		<div style="display: flex; justify-content: space-around; width: 100%;"> </div>	<div style="display: flex; justify-content: space-around; width: 100%;"> </div>



	Give opportunity to record findings-models, pictures or photographs	To know how to explain to others what I have found out	To know how to explain to others what I have found out both orally and in written form
	Explore and talk about different scientific phenomena, introduce new vocabulary	To know how to use simple data to answer questions	To know how to use simple data to answer questions or support findings

Biology

Nursery	Reception	Year 1	Year 2
PLANTS			
Key vocabulary: Plant Tree Flower Leaf	Seed Stem Bud Bulb Water Soil roots	Deciduous Evergreen Petal	Perennial Variegated Needles Cone Absorb Nutrients Energy
To observe and talk about plants and notice changes	To observe and talk about plants and notice changes and understand that they are living things	To know and name a variety of wild and common plants	To know and explain how seeds and bulbs grow into plants
		To understand the terms deciduous and evergreen	To know what a plant needs in order to grow and stay healthy

	To plant seeds and care for growing plants	To be able to label the plant using petal, stem, leaves and roots correctly	To begin to understand what the parts of a plant do
		To be able to label a tree using roots, trunk, branches and leaves correctly	
To recognise plants as living things	To understand the key features of a plants lifecycle	To be able to grow a flowering plant	To be able to grow a plant to support knowledge about a humans balanced diet
ANIMALS, INCLUDING HUMANS			
Key Vocabulary: People Living Baby Adult Caterpillar Cocoon/ chrystilis Butterfly	Young/ old Egg Hatch Chick Incubator Bird Respect Care Life cycle Names of 5 senses	herbivore carnivore omnivore species growth shelter Body part names Skeleton Bones	Respiration Excretion Movement Food groups (vitamins, minerals, protein) Pregnant/ birth Species names eg. Reptile
To notice differences between people	To recognise similarities and differences in living things	To know and name a variety of common animals, reptile, birds, fish and mammals	To know and name a variety of common animals, reptile, birds, fish and mammals and be able to sort into categories.

To explore and be curious about the world around them, talking about what they see.	To talk about lifecycles.	To know how to name each part of the human body I can see and how to link each part to a human sense	To know the basic stages in a life cycle for animals (include humans) and know that they have babies
Children encouraged to respect living things	To show care and respect to living things	To show awareness of what animals and humans need to survive.	To know what animals and humans need to survive
		To be able to classify animals by what they eat and into categories-scientific language	To understand that to survive humans need a balance diet-look at all times food and sometimes food
		To know what makes humans healthy e.g. exercise, diet and good hygiene.	To explain why humans need exercise, balanced diet and good hygiene
LIVING THINGS AND HABITATS			
Key vocabulary: Light/ dark Habitat	Care Concern Environment Nature Recycle Pollution	Arctic Polar Living/ non-living/ never lived Desert Rainforest Predator/ prey	Northern hemisphere Arctic circle Southern hemisphere Adaptation Food chain Ecosystem
To care and water plants they have grown	Shows care and concern for living things and the environment	To match and name types of habitats to types of animals	To understand how habitats differ between types of animals and why this might be



To seek out habitats in the setting-under logs, bug hotels		To know how to sort living and non-living	To identify things that are living, dead and never lived
	To be able to draw pictures of the natural world	To start to look at what the natural world provides for different animals	To understand how living things obtain food from the natural world and to be able to name these food sources

Chemistry-materials

Nursery	Reception	Year 1	Year 2
Key vocabulary: Material Senses Hard/ soft/ fluffy etc Push/pull	Natural Man made Wood, metal, etc	Classify Reversible/ non reversible changes Waterproof	Push, pull, squash, bend opaque
Explore natural materials indoors and outdoors using their senses.	To notice and observe natural materials freely outdoors	To compare and group everyday materials whilst identifying what they are made from	To know which materials are suited to which purpose-name and identify the materials and draw simple conclusions
To explore different types of textures with different properties.	To be able to group materials together and give simple reasons why	Identify and name different materials	To investigate different materials for a specific reason-eg which material will make the best umbrella

Explore and talk about how forces feel.	To explore how different equipment may work																						
To talk about what happens to different materials-ice melt, leaves turn crispy	To notice and observe changes to materials-cooking										To investigate and observe changes that happen to materials when they are manipulated.					To investigate how materials may change when using different forces (bend, push, pull, squash)							

Physics-seasonal changes

Nursery	Reception	Year 1	Year 2
Key Vocabulary: Weather (warm, cold, windy, etc).	Winter Spring Summer Autumn Hibernate	Annual Biannual Nocturnal	Polar night/day midnight sun solstice
To notice the weather throughout the year and discuss how it changes what we wear	Understand how the seasons change and how this changes the world around them	To notice and comment on seasonal change	To develop further understanding around the weathers in the seasons and how the length of the day changes over seasons
	How and why do animals behave differently throughout the seasons	Introduce and describe vocabulary for seasonal changes.	Introduce technical vocabulary-hibernation, nocturnal, seasonal change



Science at Home

Science is a subject that relates to our understanding of the processes of the world around us. As such, it is one of the most relevant subjects that children can engage with at home. We actively encourage children to continue their investigations at home, and even try some new ones. Below are some websites you might find useful to help your child learn Science at home

- National Geographic Kids [ngkids.co.uk/](https://www.ngkids.co.uk/)
- Science Activities and Experiments www.education.com/activity/kindergarten/science/
- The Science Museum www.sciencemuseum.org.uk/
- Oxford Owl www.oxfordowl.co.uk/for-home/school-year/subject-guides/science-at-primary-school/
- The School Run <https://www.theschoolrun.com/simple-science-activities-try-today>