

## Science Whole School Curriculum Overview

Our Curriculum is built around the EY Framework and National Curriculum Programmes of Study (POS)

<i><b>Progression in programmes of study</b></i>			
<b>Early Years</b>	<b>Key Stage One</b>	<b>Lower Key Stage Two</b>	<b>Upper Key Stage Two</b>
Understanding the world – The Natural World  For EY please see Whole school curriculum Map	Working Scientifically	Working Scientifically	Working Scientifically
	Animals Including Humans	Animals Including Humans	Animals including humans
	Living things and their habitats	Living things and their habitats	Living things and their habitats
			Evolution and Inheritance
	Plants	Plants	
	Everyday Materials Uses of everyday materials	States of matter Rocks	Properties and changes of materials
	Seasonal Changes	Light Sound	Light Earth and Space
		Forces and magnets	Forces
		Electricity	Electricity

### Principles / Rationale

- Organised to ensure logical progression in mixed age classes
- Wherever possible, each science lesson should have two learning objectives: one for subject knowledge and one for working scientifically.
- From discussions with our children, they find practical activities more engaging and memorable. Therefore we aim to conduct practical work wherever possible. Photographs of these activities can be taken as a record for their books.
- There are plenty of suggested activities for each topic available on the ASE website (<https://www.ase.org.uk/plan>) that do not require the use of worksheets.
- Opportunities should be created for writing. It is particularly useful for children to write about what they have learnt from their investigation.
- Links with maths are exploited. For example, making tables, charts and calculating averages could and should also spill over into science lessons.
- All children are encouraged to explore the five types of scientific enquiry at different points in the school year. According to Helen Spring (Primary Science Specialist), working scientifically is the only area we can challenge our more able pupils. This is because science knowledge is something they either know or they don't. For example *can they identify the Earth is spherical* is a yes or no assessment question. However, knowing how to conduct research/enquiry about how to prove this concept requires them to dive deeper into their understanding.

Cycle A – 2020/2021 Cycle B – 2019/2020							
		Annual Cycle A	Annual Cycle B	Annual Cycle A	Annual Cycle B	Annual Cycle A	Annual Cycle B
		Years 1&2	Years 1&2	Years 3&4	Years 3&4	Years 5&6	Years 5&6
	Early Years	Key Stage One		Key Stage Two			
Term		Annual Cycle A	Annual Cycle B	Annual Cycle A	Annual Cycle B	Annual Cycle A	Annual Cycle B
Autumn 1	Autumn-seasonal changes, what do we see? (books, art, play)  Weeks spare for topics of interest E.g. Space, Under the Sea, Minibeasts, Polar regions	Animals Including Humans (animal focus (Yr1 NC POS)	Everyday Materials (Yr1 POS) Uses of everyday materials (Yr2 POS)	Light (Yr3)	Animals including Humans (Yr3&4)	Light (Yr6)	Properties and changes of materials (Yr5)
Autumn 2			Seasonal Changes (Autumn into winter)	Electricity (Yr4)		Electricity (Yr6 POS)	
Spring 1	Birds-RSPB bird watch end of Jan. Which birds can we recognise? How can we look after our birds? -Winter/Spring-seasonal changes, what do we see?	Animals Including Humans (human focus (Yr2 NC POS)	Seasonal Changes (Spring into summer)	Forces & Magnets (Yr4)	Sound (Y3 PoS)´	Earth and Space (Yr 5 POS)	Forces (Yr5)
Spring 2	Growing-new life. Can we talk about animal life cycles? -Planting in our outdoor area. What do plants need to grow						Animals Including humans (Yr5)
Summer 1	Summer- seasonal changes, what do we see? Local environment/ area	Plants (Yr1 & Yr2 POS)	Living things and their habitats	Rocks (Yr3)	Plants (Yr 3)	Living Things and their habitats (Yr 6 POS)	Animals Including Humans (Yr 6)
Summer 2			Seasonal changes (summer)	States of Matter (Yr3)	Living things and their habitats (Yr4)		Evolution and Inheritance (Yr 6)