

	All Saints CE Primary School & Nursery		Subject Overview
	Subject:	Science White Rose Science	
HOW DOES THIS SUBJECT FIT IN?			
EYFS Framework: Understanding the World		KS1 National Curriculum	KS2 National Curriculum
Aims of Science (from National Curriculum):			
<ul style="list-style-type: none">• develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics• develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them, including the use of common vocabulary and scientific terminology• are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.• Progression of both Substantive Science Knowledge and Disciplinary Knowledge will follow through each Key Stage and build on previous learning. Enquiry based learning will be scaffolded and practical work will have a clear curriculum goal. The aim will be for teacher explanation and demonstration (where possible) with whole-class discussion prior to enquiry based activities to provide a sound framework for exploration, make connections with prior learning and minimise misconceptions.			
What this looks like in EYFS:			
<p>Science at Foundation Stage (Nursery & Reception) is covered in the ‘Understanding the World’ and PSED area of the EYFS Framework. It is introduced indirectly through activities that encourage children to explore, problem solve, observe, predict, think, make decisions and talk about the world around them. Early Years Science learning also helps children in other areas of the EYFS Framework, such as Physical Development and Expressive Arts & Design. They will observe and manipulate. They will learn to use their senses to feel objects and listen to sounds in the environment. They will make observations of animals & plants and explain why some things occur and talk about changes. The children are encouraged to ask questions about why things happen and how things work, and what they think will happen. They will be introduced to simple scientific vocabulary through discussion rhymes, songs and stories</p>			
What this looks like in KS1:			
<ul style="list-style-type: none">• The principal focus of science teaching in key stage 1 is to enable pupils to experience and observe phenomena, looking more closely at the natural and humanly-constructed world around them. They should be encouraged to be curious and ask questions about what they notice.• They should be helped to develop their understanding of scientific ideas by using different types of scientific enquiry to answer their own questions, including observing changes over a period of time, noticing patterns, grouping and classifying things, carrying out simple comparative tests, and finding things out using secondary sources of information. They should begin to use simple scientific language and build on vocabulary attained in EYFS to talk about what they have found out and communicate their ideas to a range of audiences in a variety of ways. Most of the learning about science should be done through the use of first-hand practical experiences, but there should also be some use of appropriate secondary sources, such as books, photographs and videos.• Pupils should read and spell scientific vocabulary at a level consistent with their increasing word reading and spelling knowledge at key stage 1.			
What this looks like in Lower KS2:			
<ul style="list-style-type: none">• The principal focus of science teaching in lower key stage 2 is to enable pupils to broaden their scientific view of the world around them. They should do this through structured exploration, talking about, testing and developing ideas about everyday phenomena and the relationships between living things and familiar environments, and by beginning to develop their ideas about functions, relationships and interactions.			

- They should ask their own questions about what they observe and make some decisions about which types of scientific enquiry are likely to be the best ways of answering them, including observing changes over time, noticing patterns, grouping and classifying things, carrying out simple comparative and fair tests and finding things out using secondary sources of information.
- Pupils should learn how to record their findings in simple tables, graphs etc (linked to their learning in Maths)
- They should draw simple conclusions and use some scientific language, first, to talk about and, later, to write about what they have found out.
- Pupils should read and spell scientific vocabulary correctly and with confidence, using their growing word reading and spelling knowledge.

What this looks like in Upper KS2:

- The principal focus of science teaching in upper key stage 2 is to enable pupils to develop a deeper understanding of a wide range of scientific ideas. They should do this through structured exploration and discussion of their ideas; asking their own questions about scientific phenomena; and analysing functions, relationships and interactions more systematically.
- At upper key stage 2, they should encounter more abstract ideas and begin to recognise how these ideas help them to understand and predict how the world operates. They should also begin to recognise that scientific ideas change and develop over time. They should select the most appropriate ways to answer science questions using different types of scientific enquiry, including observing changes over different periods of time, noticing patterns, grouping and classifying things, carrying out comparative and fair tests and finding things out using a wide range of secondary sources of information.
- Pupils should learn to record their findings in more complex graphical and tabular formats (linked to their learning in Maths), showing some understanding of which format best communicates the data
- Pupils should draw conclusions based on their data and observations, use evidence to justify their ideas, and use their scientific knowledge and understanding to explain their findings.
- Pupils should read, spell and pronounce scientific vocabulary correctly.

Overview of units taught (EYFS Understanding the World & PSED curriculum):

Year group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	The Human Body Seasonal changes (Autumn)	Materials Seasonal Changes (Winter)	Planting A Animals	Caring for the planet Seasonal Changes (Spring) Planting B	Plants Planting C	Growing and Cooking Seasonal Changes
Year 2	Animals' needs for survival Humans	Materials Plastic	Plants (light and dark) Living things and their habitats	Living things and their habitats Plants (light and dark)	Plants (bulbs and seeds) Growing up	Bulbs and seeds Growing up Wildlife
Year 3	Skeletons Movement Nutrition and diet	Food waste Rocks	Fossils Soils	Light	Plants A Forces	Magnets Plants B Biodiversity
Year 4	Group and classify living things Data collection A	States of matter	Sound Data collection B	Electricity Energy	Data collection C Habitats Deforestation	The digestive system Food chains
Year 5	Forces	Space Global Warming	Properties of materials	Animals including humans Life Cycles	Reproduction A Reversible and irreversible changes	Plastic pollution Reproduction B
Year 6	Living things and their habitats	Electricity Renewable energy	Light Light pollution	The circulatory system Diet, drugs and lifestyle	Variation Adaptations	Fossils Themes projects