Science 8 Year Overview

Intent: *To stimulate the natural curiosity, knowledge and understanding of all children about the world they live in.*
'Working scientifically' must **always** be taught through and clearly related to the teaching of substantive science content in the programme of study.

Units of Study:		
Biology	***Chemistry***	***Physics***
• *Animals Including Humans* • *Plants* • *All Living Things and Their Habitats* • *Evolution and Inheritance*	• *Materials* • *Rocks and Fossils* • *States of Matter*	• *Earth and Space* • *Forces and Magnets* • *Light* • *Sound* • *Electricity*

Key Skills:				
Observing over time	*Pattern seeking*	*Identifying, classifying and grouping*	*Comparative and fair testing*	*Researching using secondary sources*

	Autumn	**Spring**	**Summer**
Pre-School	• Use all their senses in hands-on exploration of natural materials. • Explore collections of materials with similar and/or different properties.	• Talk about the differences between materials and changes they notice. • Begin to understand the need to respect and care for the natural environment and all living things • Explore and talk about different forces they can feel	• Plant seeds and care for growing plants • Understand the key features of the life cycle of a plant and animal
Rec	• Explore the natural world around them. • Understand the effect of changing seasons on the world around them • Describe what they see, feel and hear whilst outside.	• Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. (ELG)	• Explore the natural world around them, making observations and drawing pictures of animals and plants (ELG) • Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class. (ELG)
Key Stage 1: 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. Pupils should read and spell scientific vocabulary at a level consistent with their increasing word reading and spelling knowledge at key stage 1.			
Year 1:	**Earth and space (Physics)** Primary skill: Observing over time Secondary skill: Pattern seeking **Materials (Chemistry)** Primary skill: Identifying, classifying and grouping Secondary skill: Comparative and fair testing	**Earth and space (Physics)** Primary skill: Observing over time Secondary skill: Pattern seeking **Animals including humans (Biology)** Primary skill: Identifying, classifying and grouping Secondary skill: Pattern seeking	**Earth and space (Physics)** Primary skill: Observing over time Secondary skill: Pattern seeking **Plants (Biology)** Primary skill: Identifying, classifying and grouping Secondary skill: Observing over time
Year 2	**Animals including humans (Biology)** Primary skill: Identifying, classifying and grouping Secondary skill: Pattern seeking	**All living things and their habitats (Biology)** Primary skill: Identifying, classifying and grouping Secondary skill: Making links using secondary sources	**Materials (Chemistry)** Primary skill: Identifying, classifying and grouping Secondary skill: Comparative and fair testing **Plants (Biology)** Primary skill: Comparative and fair testing Secondary skill: Observing over time
Lower Key Stage 2: **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.**			

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Pupils should read and spell scientific vocabulary correctly and with confidence, using their growing word reading and spelling knowledge.

Year 3	**Rocks and fossils (Chemistry)** Primary skill: Identifying, classifying and grouping Secondary skill: Making links using secondary sources **Plants (Biology)** Primary skill: Observing over time Secondary skill: Identifying, classifying and grouping	**Animals including humans (Biology)** Primary skill: Identifying, classifying and grouping Secondary skill: Pattern Seeking	**Light (Physics)** Primary skill: Comparative and fair testing Secondary skill: Pattern seeking **Forces and Magnets (Physics)** Primary skill: Identifying, classifying and grouping Secondary skill: Pattern seeking
Year 4	**States of matter (Chemistry)** Primary skill: Comparative and fair testing Secondary skill: Observing over time **Sound (Physics)** Primary skill: Identifying, classifying and grouping Secondary skill: Pattern seeking	**Animals including humans (Biology)** Primary skill: Identifying, classifying and grouping Secondary skill: Making links using secondary sources	**All living things and their habitats (Biology)** Primary skill: Identifying, classifying and grouping Secondary skill: Making links using secondary sources **Electricity (Physics)** Primary skill: Comparative and fair testing Secondary skill: Pattern Seeking

UPPER KEY STAGE 2
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.
Pupils should read, spell and pronounce scientific vocabulary correctly.

Year 5	**Materials (Chemistry)** Primary skill: Comparative and fair testing Secondary skill: Observing over time	**Forces and magnets (Physics)** primary skill: Comparative and fair testing Secondary skill: Pattern seeking **Earth and space (Physics)** Primary skill: Making links using secondary sources Secondary skill: Pattern seeking	**Living things and their habitats (Biology)** Primary skill: Making links using secondary sources Secondary skill: Pattern seeking **Animals including humans (Biology)** Primary skill: Observing over time Secondary skill: Making links with secondary sources
Year 6	**Electricity (Physics)** Primary skill: Comparative and fair testing Secondary skill: Pattern seeking **Light (Physics)** Primary skill: Comparative and fair testing Secondary skill: Pattern seeking **Evolution and inheritance (Biology)** Primary Skill: Making links using secondary sources Secondary skill: Identifying, classifying and grouping	**Animals including humans (Biology)** Primary skill: Making links using secondary sources Secondary skill: Comparative and fair testing **Living things and their habitats (Biology)** Primary skill: Identifying, classifying and grouping Secondary skill: Making links using secondary sources	**Revision of Key Stage Two Programme of Study prior to end of Key Stage Two assessments.**