Science
Curriculum Document

The following progression shows how our Science curriculum has been planned in line with our intent, providing opportunities to revisit and reinforce links with key knowledge and vocabulary. The table includes possible ideas for local and global learning. Below the table is a summary of how we might promote an understanding of our key aims of Local Community, Global Citizenship and Effective Communication within the Science curriculum.

Science Progression across year groups

(Note: This is a working document, and will be altered and updated over time)

Year	Unit	Content	Links to previous learning	Possible ideas for Local Learning	Possible ideas for Global Learning
YR	It's good to be me (Autumn 1)	Autumn walk around our environment Seasons and changes in nature		Exploring our environment Observations of nature	
	Celebrations (Autumn 2)	Light and dark			
	The world around us (Spring 1)	Weather Winter walk around our environment Seasons and changes in nature	It's good to be me	Exploring our environment Observations of nature	
	Our world in danger (Spring 2)	Launching rockets Signs of Spring Litter pick	It's good to be me	Technology in our homes	
	Plants and creatures	Plants – including growing plants and life cycles Exploring food and healthy choices Summer walk around our environment Ourselves – growing and moving on Life Cycles of Butterflies	It's good to be me The world around us	Exploring our environment Observations of nature Food we eat	Foods we eat – where do they come from?
Y1	Me and My World (Autumn 1 and 2)	Identify and label basic parts of the body and say which part of the body is associated with each senses	It's good to be me (YR)	Uses our senses to: Walk around school grounds Walk around local area identifying physical and human features Visit key locations within school site	
	Brilliant Brunel (Spring 1)	Materials and their properties Comparing and grouping materials Seasonal changes	Using my senses	Materials in my environment	
	Castles and Crowns (Spring 2)	Seasonal changes Basic structure of plants and trees	Parts of the body	Trees and plants in my environment	
	Dinosaur Discovery (Summer 1 and 2)	Identify and name different animals Compare the structure of different animals	Parts of the body	Animals in my environment incl pond and woodland	Animals around the world
Y2	Living in London: Now and in the past (Autumn 1 and 2)	Suitability of materials Changing form of materials by squashing, bending etc.	Materials (Y1)		

	Why don't penguins live in the North Pole? (Spring 1 and 2)	Living things Living things in their habitats Identify plants and animals in their habitats Basic food chains	Different animal types (Y1)	Food chains in my environment	Comparing local food chains to Arctic and Antarctic food chains
	Flying High (Summer 1)	Suitability of materials Changing form of materials by squashing, bending etc.	Materials (Y1)	Materials used to construct aeroplanes (Aerospace/Concorde etc) Enrichment: Concorde Museum	
	What's it like to live in Uganda? (Summer 2)	Plants and animals in their habitats Offspring Basic needs of animals Growth of plants and conditions for growth Importance of exercise and hygiene for humans	Habitats (Y2) Plants (Y1)	Comparing local habitats to those in Uganda Growing plants in our environment	Comparing local habitats to those in Uganda Food chains in Uganda Enrichment: Helen Harrison Acholi Visit
Y3	Stones and Bones (Autumn 1) Journey Down the Nile (Autumn 2)	Skeletons Rocks and Soil including fossil formation	(Science link – fossils – link to Y1 dinosaurs and Anning)	Soils in our environment Fossils at Aust (Y1 trip)	Location of famous dinosaur skeletons
	The Romans (Spring 1 and 2)	Forces Magnets – attract and repel, magnetic materials	Materials (Y1 and Y2)	Testing for magnetic materials in our environment	Use of magnets in the world
		Volcanoes – including layers of the Earth	Rocks and Soils (Y3)		Location of Vesuvius and Pompeii
	A Greek Holiday (Summer 1 and 2)	Light and the absence of light. Formation of shadows	Senses and seasons (Y1)	Light sources and shadows in our environment	The sun as a light source
		Plants – conditions for growth, parts of a flower, pollination, fertilisation and seed dispersal	Growth of plants (Y2)	Plants on our environment	Seed dispersal in plants from across the globe
Y4	Living by the Severn (Autumn 1 and 2)	Identify electrical items Simple circuits and switches Conductors and insulators How sounds are made Pitch and volume	Materials (Y1 and Y2) Senses (Y1)	Electrical items in the environment Conductors and insulators in our environment Sounds in our environment	
	Studying Thornbury Past and Present (Spring 1 and 2)	Solids, liquids and gases The water cycle Classification and food chains within the Severn Vale	Features of a river (Y3) Animals (Y1) Food chains (Y2)	Changing state within our environment Food chains/webs in our environment (Y2)	The water cycle in the wider world
	Ancient Egypt (Summer 1 and 2)	Digestive system Types of teeth Human and animals need for the correct nutrition	Me and My World (Y1)	My food and diet Local dentist?	
Y5	Space: To infinity and Beyond (Autumn 1)	Movement of the Earth and other planets and the Moon Day and night liked to the Earth's rotation Light travels in a straight line How we see Brightness or volume in a circuit linked to voltage Simple circuit diagrams	Senses (Y1) Flight (Y2) Light (Y3) Electricity and Sound (Y4)	Links to Aerospace The movement of the sun across our school	Location of space launches etc Day and night around the globe
	Ancient Greece (Autumn 2)	-			

	Viking Invaders (Spring 1 and 2)	Forces – air resistance, friction, water resistance Gears, pulleys and levers	Magnets and forces (Y3)	Forces in my environment	Uses of gears and pulleys
	Amazonia (Summer 1 and 2)	Life cycles of different animals Reproduction of plants and animals Changes from birth to old age	Animals (Y1) Offspring (Y2)	Life cycles of animals in our environment (woodland, pond etc)	Life cycles of animals in the Amazon
Y6	Wars that Changed the World (Autumn 1 and 2)	Circulatory system, functions of the heart, blood vessels and blood Impact of diet, exercise, drugs and lifestyle on our bodies How nutrients are transported in animals inc humans	Digestive system (Y4) Nutrition (Y4)		
	Explorers (Spring 1 and 2)	How living things have changed over time and that fossils provide information on living things Offspring vary and are not identical to their parents Classification according to observable characteristics including micro-organisms, plants and animals	Fossils (Y3) Offspring (Y2) Reproduction and life cycles (Y5) Classification keys (Y4)	Animals in our environment and their offspring Classification of living things on our environment	Links to the Galapagos islands and discoveries of Darwin (eg: finches)
	The Mayans (Summer 1 and 2)	Compare and group materials based on testing their properties Dissolving materials in a liquid to form a solution Separating materials through sieving, filtering and evaporation Uses of materials based on their properties Reversible and irreversible changes	Solids, liquids and gases (Y4) Materials (Y2)	Observing and classifying materials in our environment. Reversible and irreversible changes	Reversible and irreversible changes

Local Community 	Global Citizenship 	Effective Communication 
Our pupils will: • Use the school grounds, and the local and wider community to support teaching and learning in science. • Endeavour to meet and learn about local people who use science in their work. • Learn about scientists and scientific innovations that happened locally or have shaped our local area.	Our pupils will: • Understand how science is all around them – in the natural world, in the human-constructed world and in their everyday lives. • Learn where in the world certain key scientists lived and worked, and where key scientific discoveries happened (such as Darwin's voyage to the Galapagos Islands). • Consider the role science and scientists will play around the world in the future, such as in environmental matters, agriculture, etc.	Our pupils will: • Learn to use the correct scientific vocabulary and terminology to describe processes and observations that they study. • Be encouraged to be curious about the world around and learn how to discuss, build on and challenge ideas raised through their reading and writing. • Learn to collect, present and analyse scientific data; using a range of methods to communicate their scientific information and present it in a

• Learn about local plants and animals, and how the local area changes through the seasons.		systematic, scientific manner, including I.C.T., diagrams, graphs and charts. • Learn to conduct fair and accurate investigations in which they record and measure their observations and explain their findings.