

Science – curriculum journey at St Patrick's

Intent:

Science teaching at St. Patrick's aims to develop the children's knowledge of the world around them, its processes, methods, uses and phenomena whilst developing the skills and core concepts that will enable them to work "as scientists"; thinking critically, developing enquiry skills and an understanding of how science can impact our lives both now and in the future. Knowledge is built on sequentially across each unit and focus, revisiting and strengthening key learning across each year group. Topics such as plants are taught in Key Stage One and revisited in further detail in Key Stage Two. Within year groups, topics are sequenced to revisit and build on previous ideas such as in Year 4, where states of matter are taught before teaching sound and electricity in order to build on children's conceptual understanding and revisited in Year 5,

All children are encouraged to develop and use a range of different skills including asking questions, planning, measuring, recording, presenting, analysing and evaluating. Each skill is embedded across topics with each phase revisiting skills across year groups allowing children to strengthen their skills in each area of scientific enquiry. Their curiosity is nurtured and children are taught a variety of approaches to answer relevant scientific questions.

Additional activities such as "Science Week" and our links with different outside agencies provide children with opportunities to further their knowledge and explore options for careers within science; clubs such as astronomy club and gardening club allow children to explore the world around them in contexts outside the classroom.

Laying strong foundations in Early Years by:

Supporting children to:	Providing children with:
<ul style="list-style-type: none"> • Understand 'why' questions, like: "Why do you think the caterpillar got so fat?" • Make healthy choices about food, drink, activity and toothbrushing. • Use all their senses in hands-on exploration of natural materials. • Explore collections of materials with similar and/or different properties. • Talk about what they see, using a wide vocabulary. • Explore the natural world around them. • Make observations and draw pictures of animals and plants. 	<ul style="list-style-type: none"> • Time to be outside to explore and experience the natural world, weather and the changing seasons. • A rich learning environment with areas that support animal and plant life (growing area) • The opportunity to observe the life cycle of an animal/insect • Materials to explore and create with, on a range of scales and with different properties and textures • Wheeled toys, balances and construction equipment. • Resources to observe and capture experiences with. • Opportunities to explore environments that are different to their own

Year group	Autumn	Spring	Summer
Year 1	Everyday Materials Chemistry focus	Plants Biology focus	Animals including Humans Biology focus
	Seasonal Change Physics focus		
Year 2	Uses of everyday materials Chemistry focus	Animals including humans Biology focus	Living things and their habitats Biology focus
		Plants Biology focus	

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Year 3	Rocks Chemistry focus	Plants Biology focus	Animals including humans Biology focus
	Forces and Magnets Physics focus	Light Physics focus	
Year 4	States of Matter Physics focus	Electricity Physics focus	The Human Body – Teeth and Digestion Biology focus
	Sound Physics focus		Animals and their habitats Biology focus
Year 5	Properties and changes of materials Chemistry focus	Earth and Space Physics focus	Living things and their habitats Biology focus
	Forces Physics focus		Animals including humans Biology focus
Year 6	Electricity Chemistry focus	Living things and their habitats Biology focus	Evolution and Inheritance Chemistry focus
	Animals including humans: The Circulatory System Biology focus		Light Physics focus