



CURRICULUM

Subject overview

Science

We are Wise Owl, where Together Everyone Achieves More



Intent

Science at Wise Owl Trust is designed to ensure that the children are able to ask and answer questions about the world around them with a knowledge rich curriculum. Our sequential curriculum allows children to build on knowledge throughout their time at school. The curriculum is designed to ensure that teaching equips pupils with scientific knowledge and conceptual understanding through the disciplines of biology, chemistry and physics. As pupils progress through the school, their growing knowledge of science helps them to build on pre-existing learning. Scientific knowledge and skills are progressive and are sequenced to provide the framework and approaches that provide explanation of how the nature, processes and methods of science create the world around them. As the children are exposed to scientific problems they will use knowledge to solve whilst working scientifically. The children will be equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future; whilst also recognising scientists in the past who have created inventions that still exist today and aid modern living and society.

Science National Curriculum

The national curriculum for Science aims to ensure that all pupils:

- 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
- are equipped with the scientific knowledge required to understand the **uses and implications** of science, today and for the future



Overview of Science Content at Wise Owl Trust

Early Years Foundation Stage (EYFS)

At Wise Owl Trust we enable children to make sense of their physical world through a knowledge based Science curriculum. Pupils build cultural capital through the many experiences on offer from trips to the park, farms and local community, to observing the life-cycle of chicks first hand. Experienced staff create curious minds that question the world around them. Pupils engage with a vocabulary focused curriculum through direct teaching, experiments and through play in continuous provision, preparing them well for Year 1 and beyond. Healthy choices are promoted through the daily tooth brushing scheme, PE and conversations about healthy eating.

Three and Four Year Olds	<ul style="list-style-type: none">• Communication and Language	<ul style="list-style-type: none">• Understanding `why` questions
	<ul style="list-style-type: none">• Personal, Social and Emotional Development	<ul style="list-style-type: none">• Make healthy choices about food, drink, activity and tooth brushing
	<ul style="list-style-type: none">• Understanding the World	<ul style="list-style-type: none">• 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• Begin to make sense of their own life-story and family's history• Explore how things work• Plant seeds and care for growing plants• Understand the key features of the life cycle of a plant and an animal• Begin to understand the need to respect and care for the natural environment and living things• Explore and talk about different forces they feel• Talk about the differences between materials and changes they notice
Reception	<ul style="list-style-type: none">• Communication and Language	<ul style="list-style-type: none">• Learn and use new vocabulary in different contexts• Ask questions to find out more and to check what has been said to them• Articulate their ideas and thoughts in well-formed sentences• Describe events in some detail• Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen



	<ul style="list-style-type: none"> Personal, Social and Emotional Development 	<ul style="list-style-type: none"> Know and talk about the different factors that support their overall health and wellbeing: <ul style="list-style-type: none"> regular physical activity Healthy eating Tooth brushing Sensible amounts of `screen time` Having a good sleep routine Being a safe pedestrian
	<ul style="list-style-type: none"> Understanding the World 	<ul style="list-style-type: none"> Explore the natural world around them Describe what they see, hear and feel while they are outside Recognise some environments that are different to the one in which they live Understand the effect of changing seasons on the natural world around them
ELG	<ul style="list-style-type: none"> Communication and Language 	<ul style="list-style-type: none"> Make comments about what they have heard and ask questions to clarify their understanding
	<ul style="list-style-type: none"> Personal, Social and Emotional Development 	<ul style="list-style-type: none"> Manage their own basic hygiene and personal needs, including dressing, going to the toilet and the understanding the importance of healthy food choices
	<ul style="list-style-type: none"> Understanding the World 	<ul style="list-style-type: none"> Explore the natural world around them, making observations and drawing pictures of animals and plants 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 Understand some important processes and changes in the natural world them, including the seasons and changing states of matter



Overview of Science Content at Wise Owl Trust

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	Chemistry Everyday Materials		Biology Animals including Humans		Biology Plants	Biology Seasonal Changes
Year 2	Chemistry Uses of everyday materials		Biology Living things and their habitats		Biology Plants	Biology Animals including Humans
Year 3	Chemistry Rocks		Physics Forces and Magnets	Biology Plants	Biology Animals including Humans	Physics Light
Year 4	Chemistry States of Matter		Biology Animals including Humans	Biology Living Things and their habitats	Physics Sound	Physics Electricity
Year 5	Physics Earth and Space	Physics Forces	Biology Animals including Humans	Biology Living Things and their habitats	Chemistry Properties and changes of materials	
Year 6	Physics Light	Physics Electricity	Biology Animals including Humans		Biology Living Things and their habitats	Biology Evolution and inheritance