

## Curriculum Vision



### OUR VISION

**From tiny seeds, we grow and learn together.**

Our school vision is inspired by the parable of the mustard seed. When planted and nurtured by a loving community, every seed can grow and flourish.

Our school is like the mustard tree; a place where all are valued and belong.

Our children are like tiny seeds; in good soil they can grow as individuals, ready to branch out and be good news in an ever- changing world.

Our loving community of gardeners enable each unique child to flourish, removing barriers, and supporting growth.

**Little people can do big things through love, courage and joy.**

### OUR VALUES

**LOVE**

**COURAGE**

**JOY**

### OUR BEHAVIOUR PRINCIPLES

**KIND WORDS**

**KIND HANDS**

**KIND FEET**

### CURRICULUM INTENT

We define 'curriculum' as everything our children experience as they journey through our school, so that they become children who:

Learn and play with joy

Approach life and learning with courage, resilience and independence

Are kind and loving

Are numerate and literate

Can express their thoughts and ideas

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Have high self-esteem and are proud of their own strengths and successes	Has a strong sense of belonging	Can collaborate with others	Are good news for their school and wider community	Recognise how they have grown as a unique individual
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### SCIENCE INTENT

It is our intention that all children will experience a high-quality science curriculum which inspires a growing knowledge, curiosity and fascination about the world, so that they become children who:

Recognise the role they play as active citizens in the local, national and global community.	Explore and discover through active learning and develop a respect for living organisms and the natural environment.	Are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.
Use and apply their science skills to collect work scientifically through observation, performing simple tests and gathering data to answer questions.	Acquire scientific knowledge, understanding and skills, through carrying out simple investigations and making observations.	Ask questions to inspire their natural curiosity of the world around them. Developing an understanding of the nature, processes and methods of science through different types of science enquiry.

### SCIENCE CURRICULUM IMPLEMENTATION






We design our curriculum so that it reflects our core values, individual school context and the needs of our children, as well as delivering the statutory requirements of the Early Years Foundation Stage Framework (EYFS) and the National Curriculum. We have made deliberate curriculum choices driven by our curriculum intent.

Learning will be planned and delivered through:	Quality First Teaching (QFT) with appropriate challenge and support	Active and hands-on learning through concrete, pictorial & abstract experiences,	Consistent pedagogical approaches based upon Rosenshine's principles of effective	Rich oracy opportunities for formal and informal talk	Engaging hooks, carefully planned learning journeys, enrichment and purposeful outcomes	Ordinarily Available Provision (OAP) which meets individual needs
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		inside and outside	instruction (Crookham Toolkit)			
Learning Animals (BLP 4 Rs)	<b>Reflective Owl</b> Reflectiveness	<b>Resourceful Squirrel</b> Resourcefulness		<b>Tough Tortoise</b> Resilience	<b>Team Ant</b> Reciprocity	
Learning will be organised through	<b>Early Years Foundation Stage (EYFS)</b>					
	Understanding the World					
	<b>National Curriculum (KS1)</b>					
	<b>Science Subject Content</b>					
	Working Scientifically	Materials	Animals Including Humans	Living Things and their Habitat	Plants	Seasonal Changes
	<b>Science Disciplinary Knowledge</b> The disciplinary knowledge and skills needed to work as a Scientist:					
	Asking Questions	Observation	Classification	Performing Tests	Recording Data	Using Evidence
	Ask simple questions and recognise that questions about the world can be answered in different ways.  Perform simple tests. Identify and classify.	Use simple equipment to observe closely and noting changes (e.g. using magnifying glasses). Use observations and ideas to suggest answers to questions.	Explore, identify, sort, compare and group objects, materials, and living things based on specific criteria.	Using simple, practical resources to gather evidence through performing simple tests.	Gather and record data to help in answering questions. Using drawings, photographs, tally charts, and simple pictograms to communicate findings.	Suggesting answers to questions based on observations, tests and data gathering.

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<b>Science Subject Threads</b>						
These are key threads that run through our Science curriculum, they are:						
	Investigation	Gathering Data	Observation	Materials	Animals and plants and their habitat	Seasonal Changes
Our School specific components	 <b>Crookham</b> C.E Aided Infant School  <b>Crookham Toolkit</b> ('How we teach here')		 <b>School Library Service</b>		 <b>Oracy Approaches</b>	
	<b>Hampshire Learning Journey</b>  		<b>Visitors, Trips and Curriculum</b>  Year R Animal exploration experience. The Living Rainforest Winchester Science Centre		  <b>RSPB Big Schools Bird Watch</b>  <b>RSPB Wild Challenge</b>	
<b>CURRICULUM IMPACT</b>						
<b>MEASURING IMPACT</b>						
We draw together evidence from a variety of sources in order to evaluate how well children have learned, remembered and applied the intended knowledge, skills and attributes. These include:						
Reception Baseline Assessment and EYFS outcomes		Summative Assessment			External validation and inspection reports	
Observations of children in various	Governing monitoring evidence	Stakeholder Questionnaires	Learning Walks & Lesson Observations	Book Looks	Pupil conferencing	

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aspect of school life					
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<b>Long Term Planning LTP</b> <i>See Medium Term Planning MTP for more detail.</i>						
	<b>Autumn</b>		<b>Spring</b>		<b>Summer</b>	
<b>Year R</b>	Why are we amazing?	How far can we travel?	Where in the world?	Once upon a time...	How does it grow?	How many legs?
<b>Year 1</b>	It's good to be me <i>Materials</i>	Celebrations <i>Seasonal Changes</i>	Turrets and Tiaras/ Raws, paws and claws <i>Animals including humans</i>		How does your garden grow? <i>Plants</i>	I do like to be beside the sea... <i>Seasonal Changes</i>
<b>Year 2</b>	Detectives <i>Animals including humans</i>	Fire and flame <i>Materials</i>	Adventurers <i>Plants</i>	Adventures in the rainforest <i>Animals including humans/ Living things and their habitats</i>	Space adventures <i>Animals including humans/ Living things and their habitats</i>	Space adventures Materials

<b>Progression in Science at Crookham Infant School</b>						
<b>Working as a scientist</b>	Working Scientifically	Materials	Animals including Humans	Living Things and their Habitats	Plants	Seasonal Changes
<b>Year R</b>	Work and play cooperatively and take turns with others; BR1	Understand some important processes and changes in the	Explore the natural world around them, making observations and	Know some similarities and differences between the natural world	Explore the natural world around them, making observations and	Understand some important processes and changes in the natural world around them,

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	<p>Use talk to organise, sequence and clarify thinking and events.</p> <p>Sequence simple events e.g. plant growing, or of a story.</p> <p>Be able to predict what may happen next in a story and discuss what has already happened.</p>	<p>natural world around them, including the seasons and changing states of matter.</p>	<p>drawing pictures of animals and plants; NW1</p>	<p>around them and contrasting environments, drawing on their experiences and what has been read in class;</p>	<p>drawing pictures of animals and plants; NW1</p>	<p>including the seasons and changing states of matter.</p>
<b>Year 1</b>	<p>Ask simple questions and recognise that they can be answered in different ways. Use simple equipment to observe closely. Perform simple tests. Identify and classify. Use his/her observations and ideas to suggest answers to questions. Gather and record data to help in answering questions.</p>	<p>Distinguish between an object and the material from which it is made. Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock. Describe the simple physical properties of a variety of everyday materials. Compare and group together a variety of everyday materials on the basis of their</p>	<p>Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. Group animals according to what they eat Identify and name a variety of common animals that are carnivores, herbivores and omnivores. Describe and compare the structure of a variety of common</p>	<p>Begin to recognise the basic needs of animals and plants, including their habitat. (Not assessed as separate strand in Year 1)</p>	<p>Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. Identify and describe the basic structure of a variety of common flowering plants, including trees.</p>	<p>Observe changes across the four seasons. Observe and describe weather associated with the seasons and how day length varies.</p>

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		simple physical properties.	animals (fish, amphibians, reptiles, birds and mammals, including pets). Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.			
<b>Year 2</b>	Ask simple questions and recognise that they can be answered in different ways including use of scientific language from the national curriculum. Use simple equipment to observe closely including changes over time. Communicate his/her ideas, what he/she does and what he/she does and what he/she does and what he/she finds out in a variety of ways. Perform simple	Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. Describe how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.	Understand that animals, including humans, have offspring which grow into adults. Describe the basic needs of animals, including humans, for survival. Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.	Explore and compare the differences between things that are living, dead, and things that have never been alive. Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other. Identify and name a variety of plants and animals	Observe and describe how seeds and bulbs grow into mature plants Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy, and describe the impact of changing these.	Describe the seasonal changes we would expect to see using appropriate vocabulary and giving examples. (Not assessed as separate strand in Year 2).

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	comparative tests. Identify, group and classify. Use his/her observations and ideas to suggest answers to questions noticing similarities, differences and patterns. Gather and record data to help in answering questions including from secondary sources of information.			in their habitats, including micro-habitats. Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.		
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### Prior Knowledge and What happens next

	Working Scientifically	Materials	Animals including Humans	Living Things and their Habitats	Plants	Seasonal Changes
<b>What happens before:</b>						
<b>Nursery (pre-learning)</b>	Talk about what they see, using a wide vocabulary.	Use all their senses in hands-on exploration of natural materials. Explore collections of materials with similar and/or different properties. Talk about the	Understand the key features of the life cycle of an animal.	Begin to understand the need to respect and care for the natural environment and all living things. Use all their senses in hands-on exploration of natural materials.	Plant seeds and care for growing plants. Understand the key features of the life cycle of a plant.	

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		differences between materials and changes they notice.				
<b>What happens after:</b>						
<b>Year 3 (Next steps)</b>	Asking relevant questions and using different types of scientific enquiries to answer them. Setting up simple practical enquiries, comparative and fair tests. Measurements using standard units, using a range of equipment, including thermometers and data loggers. Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions. Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables. Reporting on findings from enquiries, including	Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties. Describe in simple terms how fossils are formed when things that have lived are trapped within rock. Recognise that soils are made from rocks and organic matter.	Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat. Identify that humans and some other animals have skeletons and muscles for support, protection and movement		Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers. Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant. Investigate the way in which water is transported within plants. Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.	<b>Light, Forces and magnets are also covered in the Year 3 Curriculum.</b>

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	<p>oral and written explanations, displays or presentations of results and conclusions. Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. Identifying differences, similarities or changes related to simple scientific ideas and processes.</p>					
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