





**Our School Vision Statement:** At Crookham Infant School we aim to make learning irresistible so that as Team Crookham we all develop the life-long learning habits of resilience, resourcefulness, reflectiveness and reciprocity through exploring together the loving invitation of Jesus to 'live life in all its fullness' John 10:10.

Our vision stems from our Christian foundation and is firmly rooted in our values: **Love God, Love Others, Love Learning.**

	Reflective Owl	Resourceful Squirrel	Team Ant	Tough Tortoise
YR	 <ul style="list-style-type: none"> <li>I can tell you what a learner is like</li> <li>I am motivated to explore and find out more</li> <li>I can tell you what I am good at and what I want to get better at</li> <li>I can ask questions and sometimes change my mind in response</li> <li>I can sometimes suggest a solution when talking together to problem solve</li> <li>With support I can plan my learning and make improvements</li> </ul>	<ul style="list-style-type: none"> <li>I know the class routines and am beginning to know what I am learning</li> <li>I can sustain my attention over time especially when I have chosen the task</li> <li>I can select resources for the task or because I am interested in them</li> <li>I can use a range of large and small resources on my own or with others</li> <li>I can talk about what I am learning with some specific vocabulary and listen to other ideas or instructions</li> </ul> 	<ul style="list-style-type: none"> <li>I can learn on my own or with others with just a little support</li> <li>I can work in a pair or group with a little support</li> <li>I am beginning to ignore distractions when I am learning</li> <li>I usually make good choices even when others are distracting</li> <li>I almost always treat others with respect using Kind Words, Kind Hands, Kind Feet</li> <li>I can respond well to other ideas and instructions</li> </ul>	<ul style="list-style-type: none"> <li>I often try myself before asking for help</li> <li>I can focus on some tasks and sustain my involvement</li> <li>I recover from my mistakes and accept some suggestions to change approach,</li> <li>I recover quickly from most disappointments</li> <li>I am beginning to enjoy challenge in my learning (being in the pit)</li> <li>I practise until I master some skills and like to finish I task I start</li> </ul>
Y1	<ul style="list-style-type: none"> <li>I know how I learn best</li> <li>I am motivated to learn for myself and to support others</li> <li>I can ask general questions and decide on an enquiry question</li> <li>I know what I am good at and have an idea of what I can't do yet</li> <li>I use talk to refine my ideas</li> <li>I can plan my learning before I start</li> <li>I can respond to ideas to help me improve my learning</li> </ul>	<ul style="list-style-type: none"> <li>I can use tools (like a visual timetable) to know what I am learning and what is coming next</li> <li>With a little support I can prepare for my learning and make good use of learning time</li> <li>I can select the resource I need for a task and use them safely</li> <li>I can use a wider range of learning resources and vocabulary specific to a subject</li> <li>I listen to others and to instructions</li> </ul>	<ul style="list-style-type: none"> <li>I can usually decide when it is better to work on my own or with others</li> <li>I can usually choose a good partner or group to learn with</li> <li>I understand that sometimes I am the leader and sometimes not</li> <li>I can ignore most distractions and usually make good choices</li> <li>I understand other people's feelings and use Kind Words, Hands, Feet</li> <li>I almost always respond with a good choice</li> </ul>	<ul style="list-style-type: none"> <li>When I start a task I can focus and stay on track</li> <li>I have some strategies to problem solve in my learning</li> <li>I learn from mistakes and can cope with some disappointment</li> <li>I often like to challenge myself and work hard to get out of the learning pit</li> <li>I am getting better at practising until I master new skills and take pride in finishing a task well.</li> </ul>
Y2	<ul style="list-style-type: none"> <li>I always take responsibility for my own learning</li> <li>I am highly motivated to learn and master new things</li> <li>I ask a number of enquiry questions before refining my enquiry focus</li> <li>I can explain in detail what I can and can't do yet</li> <li>I can explain precisely what I am finding difficult in my learning</li> <li>I use talk well to reflect and refine my thinking</li> <li>I make a detailed learning plan</li> <li>I edit and improve before needing support</li> </ul>	<ul style="list-style-type: none"> <li>I always make sure I know what I am learning now and what is next</li> <li>I am well prepared for my learning</li> <li>I am selective over the resources I use choosing what is appropriate for the task</li> <li>I am confident using a range of subject specific resources and vocabulary</li> <li>I am responsible and safe with resources using Kind Hands</li> <li>I know that people are a great resource and listen carefully to ideas and instructions</li> </ul>	 <ul style="list-style-type: none"> <li>I make great decisions about when to work independently or collaboratively</li> <li>I can recognise what makes a good learning partner</li> <li>I work well in a pair or a group where I can cope with being the leader or not the leader</li> <li>I can ignore distractions and make independent choices</li> <li>I treat others with respect using Kind Words, Hands and Feet</li> <li>I always listen to others' ideas and instructions and respond appropriately</li> </ul>	 <ul style="list-style-type: none"> <li>I can start my learning independently</li> <li>I maintain great focus and sustain it over time</li> <li>I have developed strategies which help my learning</li> <li>I learn from mistakes and can cope with disappointment</li> <li>I challenge myself in the learning pit and expect to work hard</li> <li>I have high expectations of myself and enjoy achieving well</li> <li>I keep practising, make edits and improve work</li> <li>I take pride in the learning journey as well as my finished outcomes</li> </ul>

## Curriculum Intent for Science at Crookham Infant School

The curriculum at Crookham Infant School is designed so that all pupils develop the learning habits of reflection, resourcefulness, reciprocity and resilience. They learn to apply these characteristics of learning effectively across all subjects and curriculum areas whilst at Infant School and continue to develop them in lifelong learning. Science at Crookham Infants is a spiral curriculum so that within each school year and as children move through the school from Early Years to Year 2 they have the opportunity to revisit key concepts, to rehearse and expand vocabulary, to refine skills and build on their scientific knowledge. Our pupils are encouraged to ask questions, like Owl, to investigate to answer enquiry questions like Squirrel, to explore as a team like Ant and to draw all that learning together into high quality outcomes, through resilience like Tortoise. Children at Crookham Infants will refine these learning habits as they discover a love of Science. As enthusiastic Scientists they will grow in understanding what makes science significant in the curriculum and in life learning, as it inspires and challenges us to explore all the possibilities based upon proven facts.

### Implementation for Science:

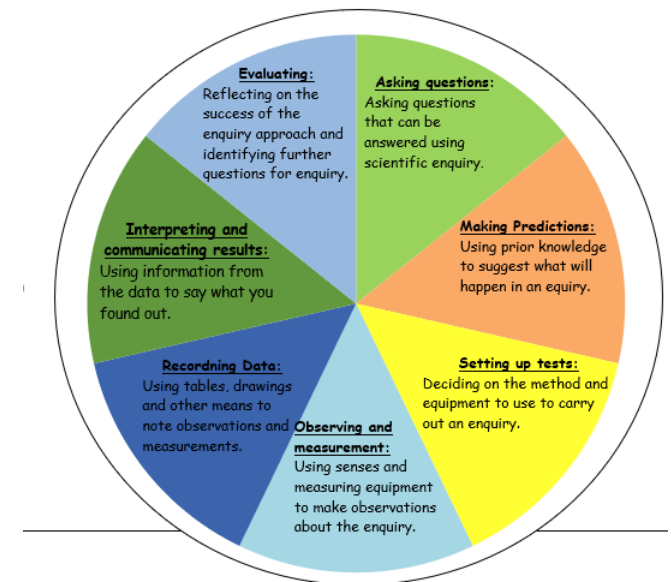
In KS1, Science is documented in a subject specific class Floor Book. To reflect the EYFS curriculum, within Year R it is recorded in a shared learning journey Floor Book. Each topic uses a cover sheet with key concepts and vocabulary covered, and the 'Working as a Scientist' wheel is referred to each time a disciplinary skill is used.

Following the Early Years Framework, in our EYFS, Science and the skills within are taught explicitly but usually embedded in The Natural World. Our children begin to develop a sense of the natural world around them through observing plants grow, watching caterpillars turn into butterflies and through exploring and caring for their own environments. The substantive knowledge within a topic may change dependent on the cohort's interests and needs, but the understanding of concepts will remain the same.

In KS1, Science is taught as a discrete subject throughout each year, with links made to the wider curriculum where possible such as, *English topics, History, Geography* to enable deep contextual learning. Teachers plan a sequence of lessons across a unit that will build on and develop the children's Scientific knowledge, vocabulary and understanding of disciplinary skills: 'Working as a Scientist'. Children are taught to explore and investigate. Links to topics, our own environment and 'Hooks' are utilised to create engagement and enjoyment. Where possible, children are encouraged to relate their scientific learning to their own lives, their experiences.

### Impact for Science:

Our Science curriculum offers high quality and well-planned lessons which encourage carefully sequenced progression from Early Years to Year 2, preparing the children for their next steps in KS2 and beyond. In line with our learning habits, our pupils think critically, ask perceptive questions and evaluate evidence. They talk about and present their understanding in a through discussions and begin building the foundations of the disciplinary skills linked to *Working as a Scientist*. Children at Crookham Infant School show their love of Science in the many opportunities to share their Floor Book learning with staff, parents and visitors. Through pupil voice, they talk about how they work as a Scientist, and are proud of the skills, vocabulary and knowledge they have acquired. The Floor Book is a central point for each class' Science journey. It is rich in vocabulary, experience and skills. Floor Books are regularly monitored and teachers input assessment data onto Target Tracker when a unit of learning is complete to support their understanding of who is on track



and where learning gaps can be promptly filled. Our Science learning helps shape our children into well-rounded citizens not only of the Team Crookham community but also the wider community and wider world.

### Long Term Planning LTP

See Medium Term Planning MTP for more detail.

	Autumn	Spring	Summer
<b>Year R</b>	<i>Why are we amazing?</i>	<i>Once upon a time...</i>	<i>How many legs?</i>
<b>Year 1</b>	<i>All About Me (Animals including humans)</i>	<i>Toys (Materials)</i>	<i>Sea Creatures (Animals, including Humans)</i>
<b>Year 2</b>	<i>Detectives/ Wolves/The Great Fire of London (What we notice about the world around us: seasons and change/ Animals including humans/ Materials)</i>	<i>Adventures in the Rainforest (Plants and Animals)</i>	<i>Flight- Neil Armstrong, Helen Sharmon (Materials, Healthy Bodies)</i>

### Progression in Science at Crookham Infant School

	Working Scientifically	Animals including Humans	Living Things and their Habitats	Materials	Plants	Seasonal Changes
<b>Year R</b>	Work and play cooperatively and take turns with others; BR1	Explore the natural world around them, making observations and drawing pictures of animals and plants; NW1	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 around them, including the seasons and changing states of matter.	Explore the natural world around them, making observations and drawing pictures of animals and plants; NW1	Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.
<b>Year 1</b>	Ask simple questions and recognise that they can	Identify and name a variety of common animals including fish,	<i>Begin to recognise the basic needs of animals and</i>	Distinguish between an object and the material from which it is made.	Identify and name a variety of common wild and garden plants,	Observe changes across the four seasons.

	<p>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>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 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.</p>	<p>plants, including their habitat. (Not assessed as separate strand in Year 1)</p>	<p>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 simple physical properties.</p>	<p>including deciduous and evergreen trees. Identify and describe the basic structure of a variety of common flowering plants, including trees.</p>	<p>Observe and describe weather associated with the seasons and how day length varies.</p>
<b>Year 2</b>	<p>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 finds out in a variety of ways..</p>	<p>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.</p>	<p>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</p>	<p>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.</p>	<p>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.</p>	<p>Describe the seasonal changes we would expect to see using appropriate vocabulary and giving examples. (Not assessed as separate strand in Year 2)</p>

	<p>Perform simple 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.</p>		<p>animals 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.</p>			
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	<b>Working Scientifically</b>	<b>Plants</b>	<b>Animals including Humans</b>	<b>Living Things and their Habitats</b>	<b>Materials</b>	<b>Seasonal Changes</b>
<b>Nursery (pre-learning)</b>	<p>Talk about what they see, using a wide vocabulary. Understand the key features of the life cycle of a plant and an animal. Explore how things work. Explore and talk about different forces they can feel.</p>	<p>Plant seeds and care for growing plants. Understand the key features of the life cycle of a plant.</p>	<p>Understand the key features of the life cycle of an animal.</p>	<p>Begin to understand the need to respect and care for the natural environment and all living things.</p>	<p>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.</p>	
<b>Year 3 Next steps</b>	<p>Asking relevant questions and using different types of scientific enquiries to answer them.</p>	<p>Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers.</p>	<p>Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make</p>		<p>Compare and group together different kinds of rocks on the basis of their appearance and</p>	<p><b>Light, Forces and magnets are also covered in the Year 3 Curriculum.</b></p>

<p>Setting up simple practical enquiries, comparative and fair tests.</p> <p>Making systematic and careful observations and, where appropriate, taking accurate.</p> <p>Measurements using standard units, using a range of equipment, including thermometers and data loggers.</p> <p>Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions.</p> <p>Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.</p> <p>Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</p> <p>Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.</p> <p>Identifying differences, similarities or changes related to simple scientific ideas and processes.</p>	<p>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.</p> <p>Investigate the way in which water is transported within plants.</p> <p>Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.</p>	<p>their own food; they get nutrition from what they eat.</p> <p>Identify that humans and some other animals have skeletons and muscles for support, protection and movement</p>		<p>simple physical properties.</p> <p>Describe in simple terms how fossils are formed when things that have lived are trapped within rock.</p> <p>Recognise that soils are made from rocks and organic matter</p>	
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	Using straightforward scientific evidence to answer questions or to support their findings.					
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