Science

Rickleton Primary School Curriculum Vision

We aim to provide a creative, inclusive, challenging real-world curriculum relevant to the local and world-wide context of Rickleton Primary School today. Learning, built on the development of strong basic skills, will inspire deep knowledge and transferable skills which progress from each individual's starting points.

We want to inspire curious and ambitious learners, with a passion for education, giving them a thirst for knowledge to become the innovators and problem solvers of the future. By immersing children in an environment which celebrates tolerance and equality, children will learn to communicate their thoughts and opinions in respectful ways.

At Rickleton Primary School, we believe that children thrive and build resilience in an environment which is safe, inclusive and supportive of their well-being. By providing this environment, we believe every child is able to achieve their best possible outcomes and feel celebrated for who they are. Our curriculum supports learners to be proud to achieve their potential academically, socially and emotionally whilst encouraging them to become ambitious life-long learners.

Intent, Implementation, Impact

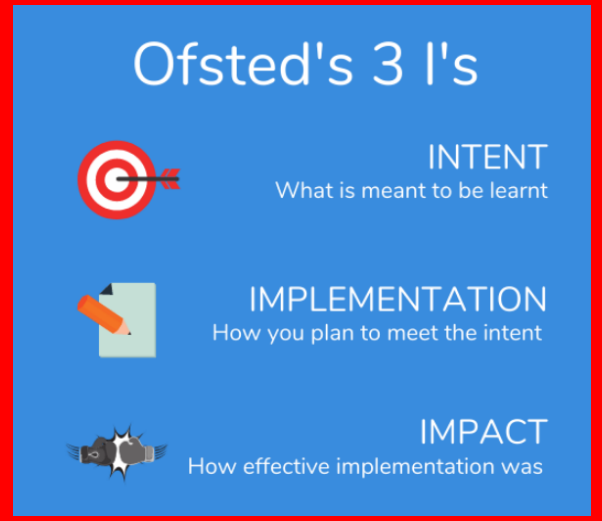
The phrase ‘intent, implementation, impact’ first came to light in 2019 when the new Ofsted inspection framework was launched. The big shift in focus was away from inspectors attempting to judge the quality of teaching and learning by observing lessons. Instead, the focus is now on attempting to judge the quality of education a school provides by, at least in part, interrogating its curriculum and its impact on pupils.

“The *intent* of the curriculum is the content you expect children to learn”

“The *implementation* of the curriculum is concerned with how you realise your intentions”

“The *impact* of the curriculum lies in whether students have learnt the things you’ve taught them”

The next three slides set out how each subject in our curriculum is designed and delivered in order to support our children to be successful. It should be clear how what they do and achieve in one subject supports the overall vision for our pupils.



Curriculum Intent

Science INTENT	We INTEND our curriculum to be:	
We want our children to be inquisitive and have a thirst for knowledge throughout their time at our school and to become life-long learners. The Science Curriculum fosters a healthy curiosity in children about our universe and promotes their respect for the living and non-living. We aim to challenge and inspire our learners through the use of a variety of fun and exciting learning scenarios, scientific visits and visitors and learning about past and current real-life scientists. Our intention is to ensure that we develop strong basic skills within both the 'working scientifically' element and the 'knowledge of science' and that these are developed progressively to ensure deep knowledge throughout children's time at the school in a safe and supportive environment. We intend that our children learn the possibilities for careers in science and, as a result of our community links, they learn from and work with professionals, ensuring that children have access to positive role models within the field of science from the immediate and wider local community. From this exposure to a range of different scientists from various backgrounds, all children feel they are scientists and capable of achieving in the subject and in their future lives.	Inclusive	Alteration of resources and level of teacher support will be evident to ensure all children achieve their potential.
	Challenging	We aim for all children to be challenged in science.
	Develop strong basic skills	Through building the working scientifically skills and scientific knowledge progressively throughout school, basic skills are strong and continually developed and built on.
	Create deep knowledge	Children can explain concepts confidently, conduct experiments, and build arguments that are relevant to their learning.
	Inspirational	We aim for our children to be inspired through their learning, through our teaching, the visits of skilled scientists and by learning about past and current scientists.

Rickleton Primary School Curriculum - Science

Curriculum Implementation

Science IMPLEMENTATION	Real-world Opportunities:	Big ideas:
The National Curriculum is used to ensure correct coverage and progression of Science throughout Key Stage One and Two whilst the Early Years Framework is used for reception and nursery. Science, where appropriate is taught as a theme (or vehicle to support other areas of learning) for example Y5 Earth and Space is used as an English theme alongside the science learning. However, where science does not fit a cross-curricular theme, it is taught discretely. Currently, staff choose whether to block science lessons or teach weekly depending on how it fits with other curriculum areas that are also being taught. In our teaching, staff ensure they plan for children to be curious and that they have the opportunity to ask and answer their own questions to ensure deeper knowledge and become life-long learners. Many real-life scenarios are incorporated into learning to challenge them and allow them to be problem solvers. As part of this, the children use high-quality resources to ensure they can investigate in a safe, scientific manner which includes collating and interpreting results which in turn links to computing and mathematical skills. Children will record their learning in science books and where appropriate staff will also create Collaborative Learning Powerpoints to capture pupil voice and learning experiences that involve visits and visitors. Staff pose precise and challenging questions to support and assess the children which will also enable learning to be inclusive. Children are offered a wide range of extra-curricular activities, visits, trips and visitors to inspire them and these will complement and broaden the curriculum as well as the outdoor learning opportunities we offer. Children will also learn about scientists which may inspire them in their future choices.	At Rickleton we value real-world experiences to support Scientific learning. Examples of Real-World opportunities that are used in our science curriculum are: Dentist, Doctors and other health professionals RSPB and other local wildlife organisations Science teachers from Biddick Academy The use of school grounds e.g. the Willow Garden and school garden Bug Man Eco-council Use of real science equipment/resources	Knowledge and understanding Pupils build their knowledge and understanding around the areas of biology, chemistry and physics. They develop recall of key information and concepts. Working Scientifically Pupils build skills of scientific enquiry. They pose and answer questions, gathering data and presenting the information accurately. Scientist Focus Pupils learn about a range of scientists and how science has helped us in the past and continues to in the future.

Subject Narrative (Intent, Implementation, Impact)

Curriculum Impact

Science IMPACT	The IMPACT of our curriculum will create pupils who are:	
The science curriculum at Rickleton Primary results in a fun, engaging, challenging and high-quality science education, that provides children with the foundations for understanding the world and become successful problem solvers with a thirst for knowledge. Through the learning that is shown in the children's books we can successfully identify the progression of basic skills that have developed into deeper knowledge. Children will articulate their understanding through pupil voice and their written responses. This learning is monitored through subject leadership strategies of: book looks, Collaborative PowerPoint scrutiny, pupil voice interviews and lesson observations. Our engagement with the local and school environment ensures that children learn through varied and first-hand experiences of the world around them. Frequent, continuous and progressive learning outside the classroom is embedded throughout the science curriculum and is inclusive to all. Through various workshops, visits and interactions with experts, scientists and local charities such as the RSPB, children have the understanding that science has changed our lives and that it is vital to the world's future prosperity. Children at Rickleton overwhelmingly enjoy science and this results in motivated learners with sound scientific understanding: they are scientists!	Curious	Ask and answer relevant scientific questions.
	Thirst for knowledge	We want them to engage with learning experiences and want to learn more.
	Problem Solvers	They are resilient when challenged and seek to find solutions to problems.
	Academic Achievers	They achieve to the best of their ability and are proud of their achievements.
	Life-long learners	They are keen and enthusiastic to learn and enquire and take this enthusiasm forward into their later lives.

An Aspirational Curriculum

We feel passionately that our children aim high and have huge aspirations for their life ahead. As well as encouraging them to be successful in future studies and work, it is a vital tool for motivation and mental well-being.

We want our curriculum to open pupils' eyes to the things to not just areas in which they feel successful, but also to develop an understanding of the things they enjoy doing. By using a clear focus on real world links and future career paths, children begin to open their eyes to future choices and opportunities from an early age.

Our Aspirational Concepts documents are designed to give children an understanding of what is needed to be successful in all subjects, as well as potential future opportunities linked to the subject. Simplified language for younger pupils means that children grow in their ability to articulate their aspirations for their future.

To be a Scientist, I...				
Develop a curiosity and inquisitivity about the world around us	Organise investigations systematically, using equipment accurately and safely.	Ask appropriate questions and develop the scientific skills to answer them	Build strong scientific knowledge and vocabulary to explain concepts confidently	Understand the uses and implication of Science, today and for the future.

To be a Scientist I...

Want to learn about world around us.

Can investigate things to find out more.

Ask questions about things I don't understand.

Explain scientific ideas clearly.

Know how Science can help us, now and in the future.

Astronaut	Pharmacist	Meteorologist	Pathologist	Astronomer

Rickleton Primary School Curriculum - Science

To be a Scientist, I...				
Develop a curiosity and inquisitivity about the world around us.	Organise investigations systematically, using equipment accurately and safely.	Ask appropriate questions and develop the scientific skills to answer them.	Build strong scientific knowledge and vocabulary to explain concepts confidently.	Understand the uses and implication of Science, today and for the future.

To be a Scientist I...

Develop a curiosity and inquisitivity about the world around us.

Organise investigations systematically, using equipment accurately.

Ask appropriate questions and develop the scientific skills to answer them.

Build strong scientific knowledge and vocabulary to explain concepts confidently.

Understand the uses and implications of Science, today and for the future.

Astronaut	Pharmacist	Meteorologist	Pathologist	Astronomer

KS2 Aspirational Concepts

Rickleton Primary School Curriculum - Science

Core Knowledge Quiz

To be a Scientist, I...

Develop a curiosity and inquisitivity about the world around us.	Organise investigations systematically, using equipment accurately and safely.	Ask appropriate questions and develop the scientific skills to answer them.	Build strong scientific knowledge and vocabulary to explain concepts confidently.	Understand the uses and implication of Science, today and for the future.
Can discuss things around us which are hard to understand?	Can explain possible dangers in an experiments and use safety equipment effectively to stay safe?	Can ask questions and make predications about things in the world around us?	Speak scientifically, using correct and accurate terminology?	Can explain why Science is important in the world around us?
Can identify some of the big scientific theories and discoveries in the world around us (gravity, condensation, electricity etc)?	Can explain what is meant by a 'fair test' and ensure an investigation is 'fair'?	Can work out a question I would like to investigate?	Can explain some of the well known scientific concepts (germination, friction, reproduction etc)?	Can explain how Science is used in everyday life (eg. electrical circuits used at home)?
Asks questions about how things happen and how things work?	Can organise and record the different steps which make an investigation effective?	Can make predictions about what I think might happen in an investigation I am carrying out?	Use scientific language to explain my understanding of the world around me?	Can recognise advances which have been made over time which have improved the way we live?
Can name famous scientists and the impact they have had on modern life?	Can systematically measure and record results accurately and check the integrity of results?	Can work systematically to plan and carry out an effective investigation?	Am confident to discuss and disagree with others respectfully about how things work and the outcomes of investigations?	Can give examples of where Science might be important in the future?

Astronaut	Pharmacist	Meteorologist	Pathologist	Astronomer

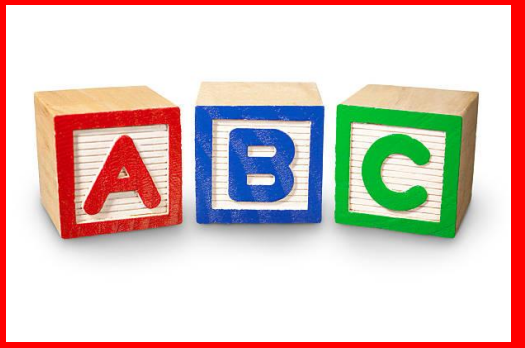
Building from the Early Years

Rickleton Primary School Curriculum

With the National Curriculum beginning from Year 1, the education in the EYFS (Early Years Foundation Stage) is often overlooked. We have always seen huge importance in making sure that learning for our youngest pupils is a building block for their future.

Staff have worked hard to ensure full coverage of the Early Years Foundation Stage profile, combined with positive integration in to the National Curriculum. Our core teaching schemes (Read Write Inc, Reading and Writing at Rickleton, NCETM Maths) all extend down to pupils in Reception and even Nursery for those who attend.

For the broader curriculum, the documents shown on the next slides support teachers to ensure they are aware of the foundation concepts which children bring from the EYFS in to the subjects taught in KS1 and 2, allowing staff to effective build on prior learning.



Science in the Early Years

In the EYFS, foundational skills and knowledge form a basis for scientific learning and although Science isn't taught as a discrete subject in EYFS, children engage in scientific exploration through activities that encourage curiosity, observation, and exploration of the natural world. Through hands-on experiences with materials, plants, animals, and their surroundings, children begin to notice patterns, ask questions, and make simple predictions—all key skills for scientific inquiry.

Within the STEM section of the provision, the children have access to a 'Science and Investigation' area, in which they develop such skills linked to current learning or season. Communication and language development in EYFS supports scientific learning by helping children articulate observations, describe changes, and discuss what they see, hear, and feel, which builds early descriptive vocabulary. Activities that promote physical development also link to Science, as children explore different textures, observe plant growth, or examine how water moves, building their understanding of physical properties and cause-and-effect relationships. Understanding the World, one of the specific EYFS learning areas, introduces children to basic concepts about the environment, living things, and the seasons, fostering a sense of wonder and respect for the natural world.

Children engage in weekly Forest School sessions in which they explore their immediate environment as well as the wider school grounds. These early experiences directly support the Science curriculum in Key Stage One, where children will learn about plants, animals, materials, and seasonal changes in more detail. By developing early skills in observation, investigation, and inquiry in EYFS, children are well-prepared to approach scientific topics systematically, with a curiosity about how things work and a foundational understanding of the world around them.

Rickleton Primary School Curriculum - Art

EYFS Curriculum Links

Curriculum Skill Progression

EYFS Science Skills

Working scientifically	Plants	Animals (Including humans) PSHE link	Everyday materials
Comments and asks questions about aspects of their familiar world such as the natural world, making observations and drawing pictures of animals and plants. Talks about why things happen and how things work e.g. seasonal change Looks closely at similarities, differences, patterns and change Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter Explore and talk about different forces I can feel – gravity, push and pull toys	Plant seeds and care for growing plants as part of Spring topic. Understand the key features of the life cycle of a plant Developing an understanding of growth, decay and changes over time Identify similarities and differences in relation to living things	Understand the life cycle of a human Begin to understand the need to respect and care for the natural environment and all living things. Talk about the features of their own immediate environment and how environments might vary from one another e.g. How is Rickleton different to Newcastle? Or London? Identify which dinosaurs are meat or plant eaters	Identify similarities and differences in relation to materials Sort materials based on properties in the Investigation area.

Seasonal Changes	Earth and Space	Forces and Magnet	Light
Talk about how the weather changes, and that different places/countries have different weather as part of 'Around the World' learning. Name some types of weather, e.g. rainy, sunny, windy, snowy, cloudy and stormy. Talk about some natural features during different seasons, including different weather, study the tree in the Nursery yard and how that changes Talk about the clothes needed for different seasons/ weather and why, as well as clothes for the Arctic as part of the Winter topic. Name the four seasons and order them. Describe how the seasons can affect the natural world and how things grow. e.g. acorns and conkers are found in autumn and some trees have no leaves in winter. Notice and describe seasonal weather patterns. Ask and answer 'how' and 'why' questions.	Name some of the planets Name Earth as the planet we live on Name the moon and the Sun To know some properties of the planets **Rocks and Fossils** Know Mary Anning discovered fossils Begin to understand what fossils are Sort rocks and group rocks by their properties Examine fossil replicas and talk about the patterns Begin to understand fossilation.	Sort magnetic and non-magnetic materials Begin to understand different forces such as push and pull Investigate how magnets work Observe how forces make things move, stop and change direction Explore how objects attract and repel during the Superhero topic Explore friction as a resistance	Know the sun provides sunlight Know the Earth orbits the sun to create day and night Begin to know that objects block the light to create shadows

EYFS Science Knowledge

Autumn

Working scientifically	Animals	Seasons
• I know how to ask questions about the world the world through using my senses - feeling, hearing, seeing# • I know some important processes and changes in the natural world around them, including the seasons and changing states of matter.	• I can order the human life cycle as part of the all about me topic • I can talk about features of where I live how this might vary from another area e.g. Arctic	• I can talk about the weather in Winter • I can describe how things have changed • I can notice signs of Autumn and Winter • I can compare the seasons

Spring

Working scientifically
- I know about aspects of my familiar world such as the natural world, making observations and drawing pictures
- I know and can talk about forces I can feel

Animals
- I know how to care for animals
- I know some of the features of my own immediate environment and how they might vary from one another
- I can order the life cycle of a butterfly and a chick

Plants
- I know how to care for growing plants.
- I know about the life cycle of a plant
- I know about growth, decay and changes over time
- I know some similarities and differences in relation to living things.
- I can talk about the signs of Spring

Summer

Working scientifically
- I know why things happen and how things work
- I know some similarities, differences, patterns and change in relation to people
- I can talk about changes between all four seasons.

Animals
- I know I need to respect and care for the natural environment and all living things, including having an awareness of sea pollution
- I know which dinosaurs are meat or plant eaters

Everyday materials
- I know some similarities and differences in relation to materials
- I know why some materials are better for making a boat

Rocks and Fossils
- I can name Mary Anning as a palaeontologist
- I know that fossils can tell us things about the past
- I know fossils are created over time.
- I know fossils are remains or imprints of plants and animals

Earth and Space
- I know I live on planet Earth
- I can name the sun and the moon
- I know the sun is a star
- I can name some other planets

Forces
- I know push and pull has an effect on a toy
- I know things fall to the ground when I let go of them (gravity)
- I know some surfaces allow objects to move more easily than others.
- I know magnets can pick up some items and not others.

Key Vocabulary

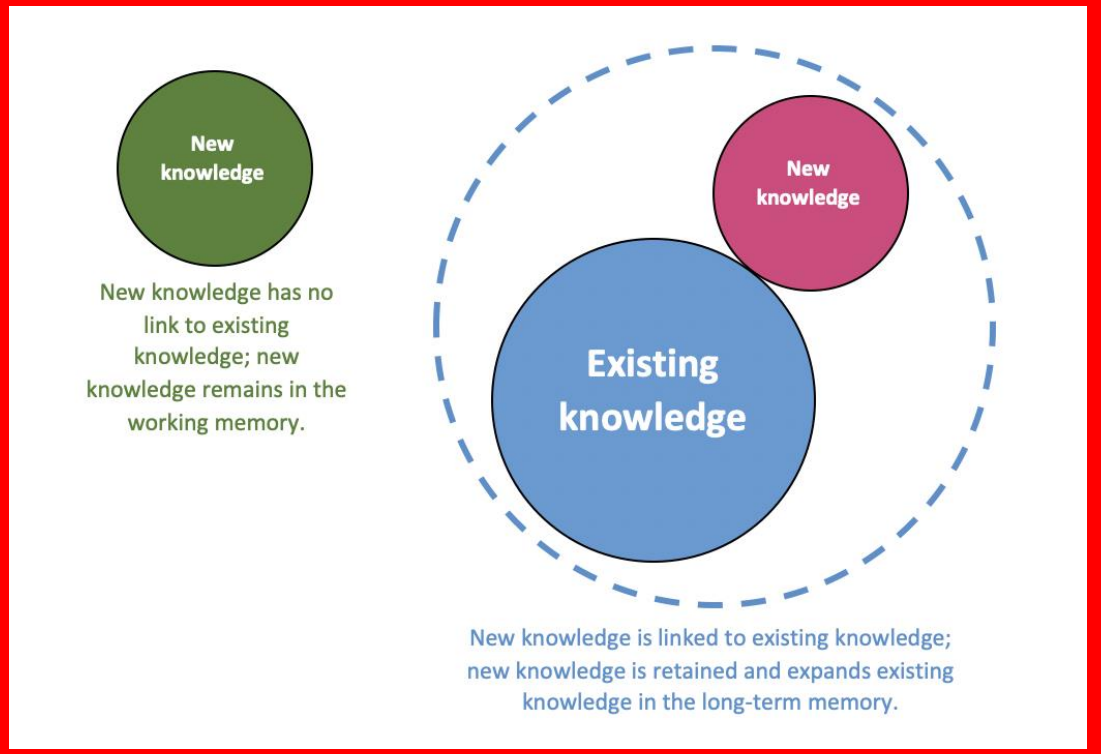
Plants	Animals (Including humans)	Everyday materials	Seasonal Change
Science, experiment, test, fair, why, world, plants, leaf, stem, root, flower, food, seed, petal, soil, sunlight, water, nutrients, investigate, observe, compare, idea, result.	animals, humans, baby, habitat, similarities, differences, dead, alive, baby, toddler, child, teen, adult, fur, feathers, wings, legs, tail, beak, categorise, sort, fish, mammal, bird, insect, minibeast, reptiles	materials, waterproof, natural, describe, sort, soft, hard, smooth, rough, sticky, shiny, bend, break, stretch, wood, metal, plastic, glass, paper, float, sink	senses, change, growth, decay, environment, water, sunny, cloudy, rainy, windy, snowy, cold, hot, Spring, Summer, Autumn, Winter, ice, frost, freezing.
Light	**Forces and Magnets**	**Earth and Space**	**Rocks and Fossils**
shadow, sun, block, sun, bright, light, dark, torch, glow, day, night, see, shine.	push, pull, move, stop, heavy, light, bounce, slide, roll, fall, gravity, friction, fast, slow, magnet, stick, magnetic	space, planets, Earth, Moon, Sun, star, sky, night, day, cloud, rocket, Mars, Venus, Mercury, Jupiter, Saturn, Uranus	crush, alive, dead, growth, change, fossilisation, stone, rock, hard, soft, bone, dig, Mary Anning, sand, mountain, discover

Knowing More, Remembering More

"Learning is defined as an alteration in long-term memory. If nothing has been altered in long-term memory, nothing has been learned." (Kirschner, Sweller and Clarke, 2006)

Learning happens when pupils make sense of ideas in relation to what they already know. When we talk about knowledge in the long-term memory, we often refer to this as Sticky learning. Sticky learning is effectively the knowledge that stays with us forever.

In order to allow our pupils' knowledge to stick, subjects are planned progressively to return to topics, themes and concepts which children recognise and can build upon. We called these themes Golden Threads.



Rickleton Primary School Curriculum

Golden Threads which run throughout the curriculum are:

THREAD	OVERVIEW	IMPORTANCE TO BROADER UNDERSTANDING AT RICKLETON
To question	Asking a question about something you observe or wonder about in the natural world.	Encouraging pupils to ask questions fosters curiosity and critical thinking. It helps them understand that there are many unknowns in the world and that asking questions is the first step in finding answers. This mindset is valuable not only in science but in problem-solving across all areas of life.
To predict	Making informed guesses based on prior knowledge and logical reasoning. It is often called a 'hypothesis'.	It teaches pupils to use prior knowledge to make educated guesses about outcomes. It encourages logical thinking and helps pupils develop the skill of connecting cause and effect.
To observe and measure	Using the senses and scientific tools to gather information accurately. Measurement is about collecting quantitative data (like height, temperature, or volume) to describe what you're observing more precisely.	Observing and measuring are foundational to gathering information about the world around us. These skills teach pupils to pay attention to detail and collect accurate data. In real life, this can help them make informed decisions, whether it's assessing how things work, monitoring progress, or evaluating results.
To investigate	Conducting experiments and practical activities to explore scientific concepts.	Investigation encourages pupils to engage actively with their environment. It promotes independent learning and the ability to explore problems systematically. It also instils a sense of curiosity, encouraging pupils to seek solutions to questions they have, which supports lifelong learning and critical problem-solving.
To record data and observations	Documenting findings systematically using tables, charts, drawings, and written descriptions.	Recording is key to making sense of the information pupils collect. This step teaches pupils how to organise and analyse data, which are crucial skills not just for science, but for many other areas. It also enhances communication skills, as pupils learn to present their findings in an understandable way.
To conclude	Analysing results to identify patterns, compare predictions with outcomes, and form logical conclusions.	Drawing conclusions from data helps pupils make informed decisions and develop reasoned arguments. It teaches them how to reflect on their work, see connections between different pieces of information, and make logical interpretations. This is an important skill in making decisions in everyday life.

The objectives of each thread are:

GOLDEN THREAD	Learning Objectives:
To question	To be curious about the natural world and the objects, materials, and processes they encounter in daily life. To understand that science is driven by asking questions about the world around them. To ask clear, focused questions based on observations or prior knowledge. To understand that asking the right question is often the first step toward investigating and solving problems. To feel comfortable asking a range of questions. To understand that there may be more than one answer to a scientific question.
To predict	To understand that actions or changes can lead to particular outcomes (cause and effect). To be able to identify patterns in natural phenomena, such as weather patterns or the growth of plants and to use these patterns to anticipate future events. To connect their previous knowledge and experiences to make predictions. To make predictions in a clear and testable way, which will later allow them to check if their predictions were accurate. To clearly state their predictions, explaining why they think a certain outcome will happen.
To observe and measure	To observe phenomena carefully, paying attention to key details such as colour, texture, shape, size, and movement. To use all their senses (sight, touch, hearing, smell, and sometimes taste) to gather information about the objects and events they encounter. To describe what they observe in clear, simple language, using appropriate scientific terms when possible. to understand that accurate and precise measurements are important in science. To use and understand the need for a range of measuring instruments with a range of units of measurement.
To investigate	To understand the concept of variables in an experiment, including independent, dependent, and controlled variables. To control variables to ensure the experiment is fair, meaning that only one variable is changed at a time. To use scientific tools and equipment safely. To be able to carry out the experiment according to the plan, making observations and collecting data systematically.
To record data and observations	To understand why it is important to record data and observations during scientific investigations. To observe and note down relevant details about what they see, hear, or measure during an investigation. To record qualitative and quantitative data in a clear and purposeful way. To use appropriate scientific language and units when recording their observations and data.
To conclude	To understand that drawing conclusions helps to interpret the results of an investigation. To compare the results of their investigation with the original question. To identify any patterns or trends in the data that may indicate relationships between variables. To understand that reliable data is necessary for drawing valid conclusions and draw conclusions that are supported by the evidence. To identify possible cause-and-effect relationships based on the data. To clearly communicate their conclusions, using evidence from the experiment to support their findings. To recognize that conclusions often lead to further questions or the need for additional investigations.

Rickleton Primary School Curriculum - Science

Golden Threads Coverage

Coverage across KS1 and KS2:

THREAD	Year 1			Year 2			Year 3			Year 4			Year 5			Year 6		
To question	A	Sp	Su	A	Sp	Su	A	Sp	Su	A	Sp	Su	A	Sp	Su	A	Sp	Su
To predict	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
To observe and measure	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
To investigate	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
To record data and observations	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
To conclude	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

THREAD	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
To question	With support, ask questions when prompted.	Start to ask questions. Recognise that questions can be answered in different ways	Ask relevant questions when prompted and use different types of scientific enquiry to answer them	Ask relevant questions and use different types of scientific enquiry to answer them	With support, plan different types of scientific enquiries to answer own questions	Plan different types of scientific enquiries to answer own questions
To predict	With support make simple predictions orally	To start making predictions based on prior knowledge	Create predictions based on prior knowledge	Create predictions based on prior knowledge	Create predictions based on prior knowledge	Create predictions based on prior knowledge
To observe and measure	Make relevant observations that will start to include simple equipment	Observe closely, using simple equipment	Make systematic and careful observations, using simple equipment	Make systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers	Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate	Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate
To investigate	Conduct simple tests with support	Perform simple tests	Set up simple and practical enquiries, comparative and fair tests with some support	Set up simple and practical enquiries, comparative and fair tests	With some support recognise and control variables where necessary	Recognise and control variables where necessary

Rickleton Primary School Curriculum - Science

Coverage across KS1 and KS2:

THREAD	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
To record data and observations	Identifying and classifying with support Gathering and recording data to help in answering questions	Identifying and classifying Gathering and recording data to help in answering questions	With support, gather, record, classify and present data in a variety of ways to help in answering questions With support, record findings using scientific language, drawings, labelled diagrams, keys, bar charts and tables	Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions Recording findings using scientific language, drawings, labelled diagrams, keys, bar charts and tables	Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs bar and line graphs.	Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs bar and line graphs.
To conclude	With support, use their observations and ideas to suggest answers to questions	Using their observations and ideas to suggest answers to questions	Begin to report on findings from enquiries including oral and written explanations, displays or presentations of results and conclusions Start to use results to draw simple conclusion, make predictions for new values, suggest improvements and raise further questions Starting to Identify differences, similarities or changes related to simple scientific ideas and processes Begin to use straightforward scientific evidence to answer questions or to support their findings.	Reporting on findings from enquiries including oral and written explanations, displays or presentations of results and conclusions Using results to draw simple conclusion, make predictions for new values, suggest improvements and raise further questions Identifying differences, similarities or changes related to simple scientific ideas and processes Using straightforward scientific evidence to answer questions or to support their findings.	Using test results to make predictions to set up further comparative and fair tests Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations	Using test results to make predictions to set up further comparative and fair tests Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations Identifying scientific evidence has been used to support or refute ideas or arguments.

Golden Threads Topic Links

Rickleton Primary School Curriculum - Science

Topic Progression