Curriculum INTENT: Science

Our School Vision and Values

Jesus said "I have come so that you might have life –life in all its fullness." John 10:10

Jesus encouraged all his children to live life in all its' fullness. Through our core values of **love, courage** and **fellowship**, and with an enquiry approach to our inter-disciplinary curriculum, our children enjoy learning about themselves, about others and the world which we are guardians of. We nurture a love of learning, celebrate courage to persevere in learning and fellowship through collaboration and recognising each other's strengths and special qualities. **'Be kind, never give up and work together.'**

Love: To love ourselves and one another alongside developing a deep-rooted love for learning.

Courage: Perseverance. To ask questions; to take measured risks; to have the courage and confidence to stand up for what you believe is right and to have the voice to say it.

Fellowship: In fellowship with our entire community, we value strengths and uniqueness so that everyone has a strong sense of belonging. We celebrate the progress towards being independent life-long learners so that our children achieve happiness and success.

At Chawton CE Primary School we believe that an engaging science curriculum will develop children's love of discovery of the world around them. We aim to inspire an appreciation of the biological, physical and chemical elements of our surroundings. We recognise the importance of nurturing a culture where children take pride in the results of their enquiries, and how they have recorded their findings. We believe that children need to develop a secure grasp of skills and knowledge in science; following a clear pathway of progression as they advance through the primary curriculum.

Love	**Courage**	**Fellowship**
'Let all that you do be done in love.' 1 Corinthians 16:14	'Be strong and courageous for the Lord your God is with you wherever you go' Joshua 1:9	'If we walk in the light as he is in the light, we have fellowship with one another…' 1 John 1:7

Creativity	**Reflection**	**Perseverance**	**Enquiry**	**Collaboration**	**Connection**
Thinking outside of the box and responding to thinking and learning in different ways.	Thinking about and looking back on learning to decide how it went and where to go next.	The ability to stick at a challenge or a task when you feel like giving up. The desire and determination to self-improve and succeed.	A way of finding out. Asking questions and wanting to find out answers.	Working together to get a job done. Working together, co-operation and communication are essential when collaborating.	Linking the building blocks of knowledge and skills together to create new understanding.

Curriculum IMPLEMENTATION

The overarching aim for science in the National and Early Years Curriculum is to promote high standards of children 'Working Scientifically. We use Learning Quests to frame the learning.
Our curriculum closely follows the aims of the National Curriculum for science 2014 and has a method for assessment that works in conjunction with the Age-Related statements of 'Working Scientifically' and the knowledge for each area of science.
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.

Planning

Planning is taken from the Programmes of Study in the National Curriculum 2014 for KS1 and 2, and from Development Matters for Early Years. We use, where appropriate, Hamilton science plans to enhance the material for study. The scaffolding processes needed by children with SEN are also planned in to science activities to ensure the access of the science content for all.

Working Scientifically

'Working scientifically' specifies the understanding of the nature, processes and methods of science for each year group. It is not taught as a separate strand. We embed 'working scientifically' within the content of biology, chemistry and physics, focusing on the key features of scientific enquiry, so that pupils learn to use a variety of approaches to answer relevant scientific questions. These types of scientific enquiry include: observing over time; pattern seeking; identifying, classifying and grouping; comparative and fair testing (controlled investigations); and researching using secondary sources. We plan for pupils to seek answers to questions through collecting, analysing and presenting data.

Knowledge and Understanding

Planning for KS1, Lower KS2 and Upper KS2 follows the National Curriculum, and for EYFS, Development Matters (as part of Understanding of the World). Using the Long Term most science is planned into Learning Quests. Some science, however need to be taught discretely. A series of practical activities is planned through the Learning Quest, each session building on the knowledge, understanding and Working Scientifically ability from the last.

Cross-curricular

Opportunities for pupils to make schematic links to Science skills across the curriculum are regularly planned for. Children will need to use their English skills when reading, for example, background material and instructions for practical activities. Handwriting and spelling knowledge is needed when writing up the method of an investigation. Children use their historical skills to investigate scientists and scientific discoveries. Many scientific themes lend themselves very well to Outdoor Learning, making the content more relevant to the children.

Curriculum IMPACT

As a result, we have a community of enthusiastic scientists who enjoy showcasing their developing Science knowledge and skills. They enjoy discussing and sharing their ideas.
Governors, through the Governor Monitoring Plan and Subject Leader Reports, evaluate the work of the science leader in ensuring that the quality of teaching and learning across the school is at least good. They ensure that pupils are ready for transition to secondary school and are equipped with the skills to flourish and succeed as caring individuals.