



Uniquely Different, United Together, Universally Prepared

At South Molton United Church of England Primary School, children have a sense of belonging in a supportive, happy environment, where their range of talents will be nurtured, enabling them to flourish and achieve excellence. Every child is valued as a unique person and can develop their sense of discovery, expectation and wonder. We embrace Christian values, which enable us to be compassionate and responsible members of our community and make positive contributions to society.

Curriculum Statement for the teaching and learning of Science 2022-23

INTENT

At South Molton United C of E Primary School, every child will:

Science is a systematic investigation of the physical, chemical and biological aspects of the world which relies on first hand experiences and on other sources of information. The scientific process and pupils' problem-solving activities will be used to deepen their understanding of the concepts enabling them to begin to make sense of our natural world. The main aspects of science to be studied will be determined by the programmes of study of the National Curriculum 2014.

Through science pupils at South Molton United C of E Primary School will continue to deepen their respect, care and appreciation for the natural world and all its phenomena. They will also be inspired to, and given opportunity to, take part in STEM activities.

Aims (Intent)

- to develop pupils' enjoyment and interest in science and an appreciation of its contribution to all aspects of everyday life.
- to build on pupils' curiosity and sense of awe and wonder of the natural world.
- to use a planned range of investigations and practical activities to give pupils a greater understanding of the concepts and knowledge of science.
- to introduce pupils to the language and vocabulary of science.
- to develop pupils' basic practical skills and their ability to make accurate and appropriate measurements. (working scientifically)
- to develop pupils', use of computing in their science studies.
- to extend the learning environment for our pupils via our school grounds and the local area.
- to promote a 'healthy lifestyle' in our pupils.

Objectives

The following objectives derived from the above aims will form the basis of our decisions when planning a scheme of work. Assessment will also be related to these objectives:

- to develop pupils' enjoyment and interest in science and an appreciation of its contribution to all aspects of everyday life.

UNDERPINNED BY

The teaching of knowledge, skills and understanding

To use a planned range of investigations and practical activities to give pupils a greater understanding of the concepts and knowledge of science.

- to provide pupils with a range of specific investigations and practical work which gives them a worth-while experience to develop their understanding of science.
- to develop progressively pupils' ability to plan, carry out and evaluate simple scientific investigations and to appreciate the meaning of a 'fair test'.

The application of skills, knowledge and understanding

To develop the ability to record results in an appropriate manner including the use of diagrams, graphs, tables and charts.

- to introduce pupils to the language and vocabulary of science.
- to give pupils regular opportunities to use the scientific terms necessary to communicate ideas about science.
- to develop pupils' basic practical skills and their ability to make accurate and appropriate measurements.
- within practical activities give pupils opportunities to use a range of simple scientific measuring instruments such as thermometers and force meters and develop their skill in being able to read them.

To develop pupils', use of ICT in their science studies

- to give pupils opportunities to use a range of ICT resources to

Vocabulary

Progressive vocabulary will be used from EYFS to Year 6 to ensure knowledge and understanding is built upon.

See vocab example list at the end of this document.

IMPLEMENTATION	<p>Curriculum Approach Use of a Mastery Approach</p>	<p>External Stimuli Local and regional environment Exeter Museum Exmoor National park University of Exeter and Plymouth</p>	<p>Extra Curricular Enhancements Links through trips Links through science and mathematics Links through STEM subjects Primary Jaguar Challenge</p>
	<p>Resources Wide range of resources to ensure curriculum coverage. 3 D printer</p>	<p>Questioning Question stems will be used in order to encourage children to ask I wonder if.. What might I improve... How might I make this a fair test...</p>	<p>Showcase opportunities Science week yearly Primary Jaguar Challenge School website</p>

	<p>Teaching Approaches</p> <ul style="list-style-type: none"> • activities to develop good observational skills • practical activities using measuring instruments which develop pupils' ability to read scales accurately • structured activities to develop understanding of a scientific concept • open ended investigations. • Discovery sessions <p>On some occasion's pupils will carry out the whole investigative process themselves or in small groups</p>	<p>Home Learning Opportunities</p> <p>Local environment Farming Research Various trips they have visited with family. Use of University of Plymouth - Kelly's Kitchen activities</p>	<p>Audience and Purpose</p> <p>Within School Regional and National finals for the Primary Jaguar Challenge.</p>
<p>IMPACT</p>	<p>By the end of each key stage, pupils are expected to know, apply and understand the matters, skills, knowledge and processes specified in the relevant programme of study.</p>		

PUPIL VOICE

Pupils will demonstrate a passion for learning and wanting to find out more. They will clearly be able to articulate their understanding. They will be able to express their passion towards looking after the local, regional, national and global environment.

EVIDENCE IN KNOWLEDGE

Our Science Curriculum is high quality, well thought out and is planned to demonstrate progression across the whole school. If children are keeping up with the curriculum, they are deemed to be making good or better progress. Year on year children will be clearly able to articulate their knowledge and make links with previous learning.

EVIDENCE IN SKILLS

Children will year on year demonstrate a greater ability to make observations, predictions, fair tests and accurate conclusions. This will be presented within their books both written, through detailed diagrams, tables and charts.

EVIDENCE IN UNDERSTANDING

Understanding will be clearly seen in the presentation of their books, from their year on year assessments and any science display learning.

SCIENCE (Skills only)

(Class teacher to decide on topic area vocab)

1

2

Question
Answer
Group
Fair test
Predict
Record
Method
Sort
Describe

Identify
Diagram
Conclusion
Observe
Question
Compare
Describe
Method
Contrast

3

4

**Research
Comparative
Compare
Conclusion
Equipment
Improve
Interpret
Method
Similarities
Differences
Accurate
Systematic**

5

**Similarities
Differences
Accurate
Systematic
Explanations
Measurements
Observations
Relevant
Scientific inquiry
Explanations
Classify
construct**

6

**Systematic
Scientific
Support
Conclusion
Comparative
Evidence
Argument
Classification
Precision
Explanation
Relationships
analysis**

**Quantitative
Qualitative
refute
Argument
Classification
Precision
Explanation
Variable
Quantitative analysis
Causal
Scatter diagram
explanations**