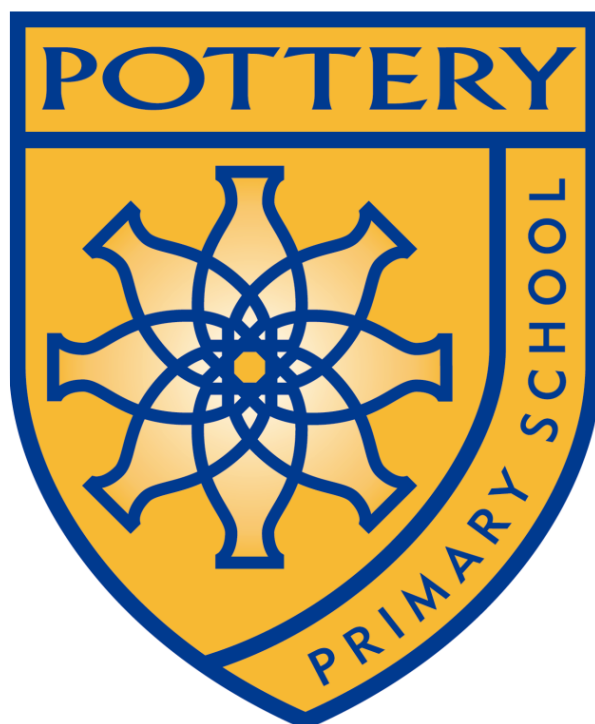


Science Policy



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Policy written by	H Rodenby
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SCIENCE POLICY

Introduction

This policy is for the information of staff, governors, parents and all those concerned with the learning and welfare of the children at Pottery Primary School.

It is the responsibility of staff and governors to ensure that the agreed policy is understood and implemented by all those concerned.

Science is one of the core curriculum subjects in the National Curriculum. This policy outlines the purpose, nature and management of the science taught in our school.

Aims

Science is about children developing a sense of enquiry and extending their knowledge about the world in which they live. It is a largely practical subject concerned with investigations that are designed to increase a child's awareness, knowledge and skills in the areas of chemistry, physics and biology. Science encourages children to develop their sense of excitement and curiosity about natural phenomena.

The aims of science are to enable children to:

- develop secure understanding of key blocks of knowledge and concepts
- use this experience to develop their understanding of key scientific ideas and make links between different phenomena and experiences.
- develop their skills of describing processes and key characteristics
- use technical terminology accurately and precisely.
- use their mathematical knowledge to explain their understanding of science, which will include collecting, presenting and analysing data.
- use a variety of approaches to answer relevant scientific questions.
- develop the scientific enquiry skills of research, pattern seeking, observing (over time) testing, identifying and classifying and problem solving.
- discover the importance and relevance of science both today and in the past through their own Science Capital, investigating famous scientists and exploring current scientific developments.

Teaching and learning

The teaching of science at KS1 and KS2 is broken down into chemistry, physics and biology with the elements of working scientifically and scientific enquiry woven throughout.

The teaching of science should help pupils to develop the working scientific skills of:

- asking questions
- planning and carrying out experiments and investigations
- making predictions
- using equipment correctly
- observing and measuring
- recording and presenting results in a variety of ways including ICT
- interpreting findings and drawing conclusions
- evaluating their learning

Planning

In the Foundation Stage, children are taught Science through the key area of Understanding the World however this is not exclusive and much of the learning and understanding happens fluidly in all areas of the Early Years curriculum through a broad range of teacher-led, child-initiated and continuous provision learning opportunities.

In Key Stages 1 and 2, science is taught using the Plymouth CIC (Community Interest Company) science scheme. A 2-year cycle has been carefully mapped out to ensure all requirements of the National Curriculum are covered by the end of Y6. An overview of topics covered in A/B years can be found as Appendix 1. The use of tools and techniques such as concept mapping and cartoons, quizzes, mind maps and knowledge organisers allow our children's starting points to inform planning and identify gaps.

Organisation

As Science is a core subject, delivery is carried out by the class teacher. Because children have widely different scientific abilities we ensure that we provide suitable learning opportunities for all children by:

- Setting open ended tasks when appropriate
- Setting tasks of increasing difficulty (we do not expect all children to complete all tasks)
- Grouping children in ability groups and setting different tasks
- Grouping children in mixed ability groups so that children share ideas and support each other
- Providing resources of different complexity
- Using classroom assistants (when available) to support the work of individual children or groups of children

Inclusion

All learning opportunities will respond to an individual child's needs. Teachers plan for those who are working below the expected ability of the class or require SEND support. Children who are deemed to be achieving beyond the class standard will be set suitable challenges. See also SEND policy.

Curriculum leadership

The subject leader will have responsibility for monitoring the planning, delivery, organisation and resourcing of science. Methods used may include lesson observations, work scrutiny, pupil and staff questionnaires as well as resource audits. Resources are stored centrally in the locked storage shed on the playground.

The subject leader will also support fellow colleagues in the planning and teaching of science throughout the school and be responsible for addressing any gaps through CPD. The leader will use Itrack data to monitor the attainment in science to ensure that levels of development are in line with National expectations. They will also ensure there is a broad and balanced curriculum, which clearly identifies progression in skills and vocabulary throughout the school.

Health and safety

All children are made aware of the relevance to health and safety when undertaking work in science. The safe use of equipment and handling of living things is promoted at all times. Health and safety references are taken from the booklet 'Be Safe' from ASE (Association for Science Education) as well as CLEAPSS Primary. A separate risk assessment for using sources of heat in school is attached (Appendix 2.) Outdoor learning should happen regularly and appropriate assessments should be made before taking the children to any specific outdoor area.