



Growing deep roots. Producing good fruit

OFFENHAM C.E. FIRST SCHOOL

SCIENCE POLICY

Introduction

Science is a continuous process by which individuals develop an understanding of the physical, chemical and biological aspects of the world. Scientific understanding is developed through a range of hands on experiences and investigations. We encourage curiosity and co-operation, while fostering a caring attitude to the living and non-living environment.

Vision

Our school vision, summed up in the following three words, “**Love, transformation and growth**” plays a significant role in our collective attitude to Science.

Our vision for Science is to inspire awe and wonder for our natural world and through those experiences for children to develop an enthusiasm and passion for Science. All children will have the opportunity to develop their natural curiosity and build on prior learning for understanding the world around them in a variety of ways. This will take place through the development of scientific vocabulary and language, first hand experiences, enquiry, discovery and investigations. Children will gain an understanding of the role of scientists, how science has changed our lives and the vital role it plays in securing the future health and prosperity of the world and its inhabitants.

Aims

At Offenham our aims in science are:

- To deliver the National Curriculum
- To develop knowledge and understanding of the key scientific concepts and a positive attitude to science
- To develop the necessary skills to carry out scientific investigations and solve scientific problems
- To see science as a human activity and to appreciate the relationships between science and society
- To foster the cross curricula links between science and other subjects
- To build self confidence to enable children to work both independently and co-operatively with others
- To encourage the children to have a responsible and considerate attitude towards their work, with an awareness of safety for themselves and others.

Science will:

- Be enquiry based and engaging.
- Involve ownership of learning, working collaboratively and discussing ideas and findings.
- Have clear and challenging sequences for learning.

- Be practical and 'hands on' with children discovering for themselves.
- Lead to a knowledge of the contribution of Science, inspired by Science professionals and making links with everyday life.

Objectives

Children should have the opportunity to:

- Develop the skills of observing, predicting, problem solving, modelling and analysing science
- Develop the practical skills of science with due regard to safety
- Develop the ability to plan and carry out investigative work
- Acquire a relevant body of scientific knowledge.

Teaching and Learning

The curriculum is taken from the Programmes of study as directed by the National Curriculum document and is separated into Key Stage 1, Lower Key Stage 2 (Year 3 and 4) and Upper Key Stage 2 (Years 5 and 6).

Children will cover the following aspects in Key Stage 1:

- Working scientifically
- Plants
- Animals including humans / living things and their habitats
- Everyday materials and their uses
- Seasonal changes

Lower Key Stage 2 (Years 3/4):

- Working scientifically
- Plants
- Light
- Animals including humans / living things and their habitats
- Rocks
- Forces and Magnets
- States of matter
- Sound
- Electricity

Upper Key Stage 2 (Year 5):

- Working scientifically
- Animals including humans / living things and their habitats
- Properties and changes of materials
- Earth and Space
- Forces and magnets

Curriculum Planning

As there are specific requirements for each year group, in both Key Stages the children are taught in separate year groups and not as part of their mixed class. In their medium term planning teachers also consider the fact that some units lend themselves to a specific time in the year e.g. growing plants. In both key stages science teaching is supported with units from Plan bee and Explorify.

Educational Inclusion

At Offenham school we are aware that all children are different and that their differing needs must be catered for. We have systems in place to ensure that the health, safety, care and protection of all children are catered for. In science the teacher will ensure that:

- All children are able to access the science curriculum
- In oral and discussion work questions will be planned and adapted where appropriate
- Open ended questions are asked to encourage and promote discussions and provide speaking and listening opportunities
- A range of teaching styles is used
- Where possible children are supported by teachers and teaching assistants to achieve their potential

Our school values embrace educational inclusion, as reflected in its curriculum, resources, communications, procedures, conduct and relationships.

Adaptive teaching

Teachers will ensure that their teaching strategies enable all individuals or groups to work at a level which is appropriate to and challenging for them.

Assessment and recording

Assessment of the children's work is a continuous process and examples of the children's work will reflect their achievement. This continuous process will sit alongside Knowledge catchers and end of unit quizzes/assessments.

Learning zones will also provide a visual record of the learning in each class.

Teachers will assess the children's work reflecting on the science lesson objectives. In both key stages, assessments will be completed at the end of each unit, based upon national expectations taught during the unit. Teachers will use end of term assessments to assess the children's knowledge and understanding of each objective.

Health and Safety

Throughout all science activities the children will be taught to handle equipment safely and to care for all living things. To aid teachers in aspects of health and safety all staff have access to the current Worcestershire County Council safety guidelines. Risk assessments are carried out for science activities and equipment when needed.

This policy was approved by the Local Academy Board in the Autumn Term 2024, and will be reviewed by the Head Teacher and staff in the Autumn Term 2025.