OAKWORTH PRIMARY SCHOOL

"committed to the safety and welfare of its pupils"

Science Policy

Aims

A high-quality science education provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics. Science has changed our lives and is vital to the world's future prosperity, and all pupils should be taught essential aspects of the knowledge, methods, processes and uses of science. Through building up a body of key foundational knowledge and concepts, pupils should be encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena. They should be encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes (National Curriculum, 2013).

There are three aims in the English primary science curriculum, to ensure that all pupils:

1. develop **scientific knowledge and conceptual understanding** through the specific disciplines of biology, chemistry and physics
2. 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
3. are equipped with the scientific knowledge required to understand the **uses and implications** of science, today and for the future.

At Oakworth Primary School, the principles of our science curriculum are as follows:

- To teach scientific skills and concepts through scientific investigation, wherever possible.
- To encourage children to decide on their own approaches to their investigations, make predictions and to discuss and present their learning in an appropriate manner.
- To ensure children are able to carry out practical work safely, make observations and take increasingly accurate measurements as they progress through school.
- To give children the opportunity to develop a variety of skills to support their learning in science, including cross-curricular maths and English.
- To develop scientific knowledge and conceptual understanding through the specific disciplines of life processes and living things, materials and their properties and physical processes.
- To observe the world around them and develop a good understanding of nature and natural processes.

Role of the Science Leaders

The role of the science Leaders is to:

- Support colleagues in the teaching of science.
- Ensure that all attainment targets are being taught in every year group (including the working scientifically skills referred to in the National Curriculum) and that children's needs are met through the provision of a high-quality, engaging science curriculum.
- Ensure that assessment of learning in science is being carried out in a timely and appropriate manner.
- Put a science policy in place for the school which will be reviewed when necessary.
- Liaise with senior management over developments, budget and INSET.
- Maintain and purchase resources for the school.
- Organise the storage and distribution of resources.
- Provide opportunities for extra-curricular science, encourage visitors to attend school and promote the subject as part of our school's positive engagement with the S.T.E.M. subjects.

Teaching and learning

In science, teachers should:

- Make science lessons enjoyable such that children are encouraged to participate and develop their understanding of the subject.
- Maintain an emphasis on working scientifically, with teachers providing exciting opportunities for children to practise the five enquiry focusses: (a) observing over time, (b) pattern seeking, (c) identifying, classifying and grouping, (d) comparative and fair testing and (e) researching using secondary sources.
- Plan lessons that encourage questioning, curiosity and an appreciation of the world children see around them.
- Have stage-appropriate, high expectations so that learning objectives and activities are sufficiently challenging for all children.
- Provide pupils with regular feedback in order to encourage progression in the subject.
- Ensure that teaching and learning time devoted to science is commensurate with science being a core subject, with an average of two-hours per week being the expectation.

Assessment

This will be in accordance with the school's Assessment Policy which is followed throughout the school. Teachers are to assess pupils' work against the attainment targets specified in the National Curriculum at the end of every topic. At the end of the academic year, teachers are expected to assess the working scientifically elements of the curriculum so that they can take into account a broad range of evidence taken throughout the year including, for example, verbal contributions to investigations or explanations as well as written outcomes. All assessment is to be logged on the school's assessment system, Target Tracker.

Resources

The resources are stored centrally, in the Rainbow Room. Teachers need to collect their resources as they need them and ensure they return them to where they came from. Staff should notify the co-ordinator of any extra resources required, of any breakages or losses that occur and of any new materials that may prove useful.

This policy will be reviewed every two years, or earlier if necessary.

Signed: …… **Date: 21 January 2019**

Chair of Governors