

Ormesby Village Junior School Science Policy 2023



Rationale

Science is a body of knowledge and understanding built up through experimental testing of ideas. Science is also a methodology; a practical way of finding reliable answers to questions we may ask about the world around us.

Science at Ormesby Village Junior School is about developing children's ideas and ways of working that enable

them to :

- Think critically and communicate their understanding;
- Have opportunities to apply their scientific skills in different contexts across the curriculum;
- Develop enquiry skills useful for science and across the curriculum.

Aims

- Preparing children for life in an increasingly scientific and technological world
- Fostering concern about, and active care for, our local and global environment.
- Helping children develop a scientific concept of their world.
- Developing children's understanding of the international and collaborative nature of science.
- Enabling children to appreciate every-day and technological applications of science, both positive and negative.

Attitudes

- Encouraging the development of positive attitudes to science for both girls and boys.
- Building on children's natural curiosity and developing a scientific approach to problems.
- Encouraging open-mindedness, self-assessment, perseverance and responsibility.
- Encouraging children to engage in scientific enquiry; posing questions and investigating.
- Developing children's social skills to work co-operatively with others.
- Providing children with an enjoyable experience of science, so that they will develop a deep and lasting interest

Skills

- Giving children an understanding of scientific processes.
- Helping children to acquire practical scientific skills.
- Developing the skills of investigation - including observing, questioning, measuring, predicting, hypothesising, experimenting, communicating, interpreting, pattern spotting, explaining and evaluating.
- Developing the use of scientific language, recording and techniques.
- Enabling our children to become effective communicators of scientific ideas, facts and data.

Science and the National Curriculum

Lower Key Stage 2

The principal focus of science teaching in lower Key Stage 2 is to enable pupils to broaden their scientific view of the world around them. They should do this through exploring, talking about, testing and developing ideas about everyday phenomena and the relationships between living things and familiar environments, and by beginning to develop their ideas about functions, relationships and interactions. They should ask their own questions about what they observe and make some decisions about which types of scientific enquiry are likely to be the best ways of answering them, including observing changes over time, noticing patterns, grouping and classifying things, carrying out simple fair tests and finding things out using secondary sources of information. They should draw simple conclusions and use some scientific language, first, to talk about and, later, to write about what they have found out. 'Working scientifically' is described separately at the

beginning of the programme of study, but must always be taught through and clearly related to substantive science content in the programme of study. Throughout the notes and guidance, examples show how scientific methods and skills might be linked to specific elements of the content. Pupils should read and spell scientific vocabulary correctly and with confidence, using their growing word reading and spelling knowledge.

Upper Key Stage 2

The principal focus of science teaching in upper Key Stage 2 is to enable pupils to develop a deeper understanding of a wide range of scientific ideas. They should do this through exploring and talking about their ideas; asking their own questions about scientific phenomena; and analysing functions, relationships and interactions more systematically.

At upper Key Stage 2, they should encounter more abstract ideas and begin to recognise how these ideas help them to understand and predict how the world operates. They should also begin to recognise that scientific ideas change and develop over time. They should select the most appropriate ways to answer science questions using different types of scientific enquiry, including observing changes over different periods of time, noticing patterns, grouping and classifying things, carrying out fair tests and finding things out using a wide range of secondary sources of information. Pupils should draw conclusions based on their data and observations, use evidence to justify their ideas, and use their scientific knowledge and understanding to explain their findings.

'Working and thinking scientifically' is described separately at the beginning of the programme of study, but must always be taught through and clearly related to substantive science content in the programme of study. Throughout the notes and guidance, examples show how scientific methods and skills might be linked to specific elements of the content. Pupils should read, spell and pronounce scientific vocabulary correctly.

Assessment:

- Assessment for learning should occur throughout the entire science lesson, enabling teachers/teaching assistants to adapt their teaching/input to meet the children's needs. This feedback should be incisive and regular.
- Children should self-assess against the learning objective and success criteria, giving them a sense of success.
- Pupil's work should be marked in line with the Marking Policy and should model how corrections should be made, giving children a chance to learn from their misconceptions or incorrect methods. At the beginning of each lesson, time should be given for pupils to reflect on marking and comments on the previous work.
- Future lesson design should depend on class success evaluated through marking and observations made during the lesson.
- Assessment of pupil work and progress is on-going by the class teacher and informs future planning.

Teachers mark work in science in line with the school marking policy. Teachers use formative and summative assessment against the LKS2 or UKS2 descriptors which allows teachers to assess children's progress in science, gathering evidence over the course of the year.

Teachers use this information to inform planning for groups and individual pupils.

Resources

Science resources are kept in the staffroom. An audit of resources will be completed annually and in line with staff requests in order to ensure curriculum coverage.

Consumable items can be purchased on request.

We promote science through links with local industries, parents with specialist knowledge, visits and exhibitions, competitions and events whenever possible.

Responsibilities of the Subject Leader

- Monitor the effectiveness of Science teaching and learning by means of lesson observation, pupil interviews, learning walks, sampling children's work and overseeing assessment
- Provide feedback to teaching staff and the Headteacher
- Periodically update the whole school planning overview (in consultation with all teaching staff) to ensure it remains relevant and appropriate.
- Attend subject leader network meetings and disseminate new information
- Support teachers in planning and delivering the curriculum
- Manage the resources for teaching Science
- Report to the Governing Body as requested.

Health and Safety

All children are made aware of the importance and relevance of health and safety when undertaking work in science. In planning, the class teacher is expected to assess the risks and adjust their lessons accordingly to ensure safe practice and appropriate levels of supervision.

EVALUATION

This policy will be observed in practice by the subject manager on a regular basis as part of the monitoring Process

Policy Ratified on October
2023

Policy Reviewed October
2024

Signed by _____ Headteacher

Signed by _____ Chair of Governors