Science Policy

Thomas Jolyffe Primary School

To be the best we can be!

Approved by: Rosie Wheatley	**Date:** September 2025
Last reviewed on: September 2024	
Next review due by: September 2026	

Science Policy

1 Aims and objectives

1.1 Science teaches an understanding of natural phenomena. It aims to stimulate a child's curiosity in finding out why things happen in the way they do. It teaches methods of enquiry and investigation to stimulate creative thought. Children learn to ask scientific questions and begin to appreciate the way science will affect their future on a personal, national, and global level.

1.2 The aims of science are to enable children to:

- develop positive attitudes to science.
- ask and answer scientific questions;
- plan and carry out scientific investigations, using equipment correctly and safely;
- know and understand the life processes of living things;
- know and understand the physical processes of materials, electricity, light, sound and natural forces;
- know about the nature of the solar system, including the earth;
- evaluate evidence and present their conclusions clearly and accurately.

2 Teaching and learning style

2.1 We use a variety of teaching and learning styles in science lessons. Our principal aim is to develop children's knowledge, skills, and understanding. Sometimes we do this through whole-class teaching, while at other times we engage the children in an enquiry-based research activity. We encourage the children to ask, as well as answer, scientific questions. They have the opportunity to use a variety of data, such as statistics, graphs, pictures, and photographs. They take part in discussions and they present reports to the rest of the class. They engage in a wide variety of problem-solving activities. Wherever possible, we involve the pupils in 'real' scientific activities, for example, researching a local environmental problem or carrying out a practical experiment and analysing the results.

2.2 We recognise that there are children of widely different scientific abilities in all classes and we ensure that we provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child. We achieve this in a variety of ways by:

- setting common tasks which are open-ended and can have a variety of responses;
- setting tasks of increasing difficulty (we do not expect all children to complete all tasks);
- providing resources of different complexity, matched to the needs of the child;
- using classroom assistants to support the work of individual children or groups of children.

3 Science curriculum planning

3.1 Teachers use the national curriculum statements for science as the basis of their curriculum planning. The national curriculum is then adapted to the needs of our children where we make use of the local environment and personal development targets.

3.2 We carry out our curriculum planning in science. The long-term plan maps the scientific topics studied in each term during the key stage. The science subject leader works this out in conjunction with teaching colleagues in each year group. In some cases we combine the scientific study with work in other subject areas, especially at Key Stage 1; at other times the children study science as a discrete subject.

3.3 Curriculum planning gives details of each unit of work for each term. At Thomas Jolyffe Primary School, we take this planning from Kapow and adapt to meet the needs of our children accordingly. The science subject leader reviews these plans regularly. In this way we ensure complete coverage of the National Curriculum and ensure progression of skills and knowledge from the foundation stage to the end of key stage 2. These plans list the specific learning objectives of each lesson.

3.4 We have planned the topics in science so that they build upon prior learning. We ensure that there are opportunities for children of all abilities to develop their skills and knowledge in each unit and we also build progression into the science scheme of work, so that the children are increasingly challenged as they move up through the school.

3.5 Vocabulary word mats and concept cartoons are regularly used in topics to ensure development of oracy through the science curriculum and to aid prior knowledge.

4 Foundation Stage

4.1 We teach science in reception classes as an integral part of the topic work covered during the year. As the reception class is part of the Foundation Stage of the National Curriculum, we relate the scientific aspects of the children's work to the objectives set out in the Early Learning Goals (ELGs) which underpin the curriculum planning for children aged three to five. Science makes a significant contribution to the objective in the ELGs of developing a child's knowledge and understanding of the world, e.g. through investigating what floats and what sinks when placed in water.

5 Assessment

5.1 We assess children's work in science by making informal judgements as we observe them during lessons and use this to inform short term planning. On completion of a piece of work, the teacher marks the work and comments as necessary. Assessment activities are built into each unit of work and a summative evaluation of each pupil's work is made in relation to the National Curriculum attainment statements. These evaluations are entered into assessment software (Insight) for each cohort. Assessment information is available to all teachers throughout the year to aid progression.

6 Resources

6.1 We have sufficient resources for all science teaching units in the school. We keep these in a central store. The library contains a good supply of science topic books and computer software to support children's individual research. The resource list is circulated to staff to ensure all staff know what resources are available.

6.2 Perishable resources are renewed by the science leader regularly and when needed. Class teachers will inform the leader when this is needed.

7 Monitoring and review

7.1 It is the responsibility of the science leader to monitor the standards of children's work and the quality of teaching in science. The science leader is also responsible for supporting colleagues in the teaching of science, for being informed about current developments in the subject and for providing a strategic lead and direction for the subject in the school. The science subject leader gives the head teacher a list of targets and actions to further improve the provision of science annually in the form of a subject action plan.

7.2 Each class has a science ambassador who meets with the science leader regularly to ascertain pupil's views of science in school.