



Science Policy

February 2018, E. Forster

Science makes a valuable and relevant contribution to all aspects of life. 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 in which science will affect the future on a personal, national, and global level.

Aims

As a result of our science teaching we want to develop children who:

- are observant, curious and caring about our environment;
- see science as an enjoyable experience;
- can work individually and cooperatively, listening to, and valuing, the opinions of others;
- can observe, question, hypothesise, plan, measure, test, communicate and draw conclusions;
- are able to relate science to everyday life and appreciate its contribution both in the present, and historically, to our society and other cultures;
- appreciate the nature of science and the importance of collecting evidence.

Planning

Science is taught through a rolling programme due to the nature of our classes. Sessions are planned with the 5 E's in mind at all times (Engage, Explore, Explain, Elaborate, Evaluate). Planning should reflect the need for children to work scientifically to investigate and understand the main concepts of the national curriculum.

- Where schemes of work, such as Twinkl or Hamilton Trust are used, they will be adapted to meet the needs of children at the Three Rivers Federation
- Medium term planning is completed in alignment with the Rolling Program
- Lesson are evaluated by class teachers and this is used to inform future teaching and learning (this does not need to be in a written format)
- Key Stage 2 plan for 2 hours of science per week (or an equivalent number of hours in blocks)
- Key Stage 1 plan for 1 ½ hours of science per week (or an equivalent number of hours in blocks)
- Planning is in line with the school planning policy
- We have planned the topics in science so that they build on prior learning
- We ensure that there are opportunities for children of all abilities to develop their skills and knowledge in each unit.

Teaching and Learning

Our philosophy on teaching and learning is encapsulated in our **Teaching and Learning Policy** to which reference should be made.

Additionally, the practical nature of science should be recognised and opportunities for learning through hands on and first-hand experiences should be provided. Science plays an important role in the development of investigative skills and draws upon strong mathematical links, for example measurement, pattern recognition, graphical skills and data handling. Curricula links where possible are also encouraged.

Due to its highly practical nature, children's work will reflect this and books will contain a variety of photographs, diagrams, thought bubbles, mind maps etc. as well as more formal pieces of writing. Floor books may be used where teachers, TA's and children can combine their thinking, questions and ideas through the use of post-it notes, photos and drawings.

Assessment

Children should be assessed continuously against the working scientifically statements which are appropriate to their age and ability. Knowledge can be assessed through revisiting mind maps or concept cartoons from the beginning of a topic at the end of a topic to show understanding and progression. More formal assessment can be used through KS2 to record understanding of language and key ideas. As a core subject, science attainment will be formally recorded at the end of each key stage.

Resources

There are communal science resources in both schools, these resources are available to all year groups and resources are also transferrable between schools. Individual teachers are responsible for collection and return. Shortages and breakages should be reported to the Head Teacher/Subject Leader. Children, teachers, support staff and voluntary helpers are all recognised as important resources, where appropriate.

Review

This policy will be reviewed as part of the general curriculum review programme listed in the School Development and Improvement Plan.

Please note, this policy should be read in conjunction with Code of Practice, Teaching and Learning, Health and Safety, Equal Opportunities and SEND policies.