



Seamer and Irton CP School

Science Policy



Policy name	Science Policy
Frequency of review	Biennially
Governor lead	Tom Wilkinson
Lead member of staff	Victoria Walker/Kerry Hollingsworth
Reviewed on	30 November 2023
Reviewed by	Governing Board
Next review	November 2024

Intent

At Seamer and Irton Community Primary School it is our intent to make science lessons a fun, practical experience where children can explore their ideas and develop skills. This is clearly shown in our School Science Principles formed by staff, pupils and parents. We encourage children to be inquisitive throughout their time at the school and beyond.

The science curriculum fosters a healthy curiosity in children about our universe and promotes respect for the living and non-living. We believe science encompasses the acquisition of knowledge, concepts, skills and positive attitudes.

Implementation

There is a clear and comprehensive scheme of work in line with the National Curriculum. These are using both the North Yorkshire science scheme of work and Rising Stars (which is support for those staff who are less confident in science). We follow our science principles which staff, pupils and parents have had input into.

Our school has achieved the Gilt Primary Science Quality Mark, which shows teachers have a positive approach to science. The new knowledge organisers promote a high expectation that all children are capable of achieving high standards in science. Our whole school approach to the teaching and learning of science involves the following;

- Science will be taught in planned and arranged topic blocks following the long-term plan, to have a practical-based approach (as much as possible). This is a strategy to enable the achievement of a greater depth of knowledge.
- Through our planning, we involve problem solving opportunities that allow children to find out for themselves. Children are encouraged to ask their own questions and be given opportunities to use their scientific skills and research to discover the answers. This curiosity is celebrated within the classroom. Planning involves teachers creating engaging lessons (with ideas provided in the staff knowledge organisers), often involving high-quality

resources to aid understanding of conceptual knowledge. Teachers use precise questioning in class to test conceptual knowledge and skills, and use Kagan quiz trade cards and Plickers to assess children regularly to identify those children with gaps in learning, so that all children keep up.

- We build upon the learning and skill development of the previous years. As the children's knowledge and understanding increases, and they become more proficient in selecting, using scientific equipment, collating and interpreting results, they become increasingly confident in their growing ability to come to conclusions based on real evidence.
- Working Scientifically skills and the types of enquiry are embedded into lessons to ensure these skills are being developed throughout the children's school career and new vocabulary and challenging concepts are introduced through direct teaching. This is developed through the years, in-keeping with the topics. There is a half term block in each year group solely based on Working Scientifically where topic areas that may not be covered every year are revisited.
- Teachers demonstrate how to use scientific equipment, and the various Working Scientifically skills in order to embed scientific understanding. Teachers find opportunities to develop children's understanding of their surroundings by accessing outdoor learning and having visits to engineering fairs and Graham School.
- Forest School sessions have been timetabled for each year group and class. These sessions use nature and the outside in order to further children's understanding of the world.

Impact

As part of the knowledge organisers, there is an initial and end of topic mini assessment for staff to assess the children's understanding of the topic and progress. This then informs the assessment in ScholarPack. Kagan quiz, quiz trade cards and Plickers will also be used in order to help the children retain the subject knowledge of the topic (there will be quiz trade cards for each topic area and each year group so year other year groups can use them as a revision starter for the lesson) and again assess their understanding. The successful approach at Seamer results in a fun, engaging, high-quality science education, that provides children with the foundations and knowledge for understanding the world. Children at Seamer overwhelmingly enjoy science.

Equalities and inclusion

We teach science to all children, whatever their ability. Science forms part of the school curriculum policy to provide a broad and balanced education for all children. We provide learning opportunities that are matched to the needs of children with learning difficulties. The use of thinking frames also supports children with learning difficulties.

Assessment and recording

We assess children's work in science by making informal judgements as we observe them during lessons. On completion of a piece of work, the teacher marks the work and

comments as necessary ticking the relevant objective on the topic insert sheet. There is also an initial and end of unit assessment for the children to complete to support assessment. At the end of a unit of work the teacher makes a summary judgement about the work of each pupil and this is then recorded on ScholarPack, which then shows progress across each term and each year. The science co-ordinator monitors progress and supports staff as necessary. This is then passed onto the next teacher at the end of the year.

We have folders available with exemplar assessments for supporting assessment judgements. These demonstrate what the expected level of achievement is in science for each age group in the school.

Monitoring and review

It is the responsibility of the science subject leader to monitor the standards of children's work and the quality of teaching in science. The science subject 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 an annual summary report in which s/he evaluates strengths and weaknesses in the subject and indicates areas for further improvement. The science subject leader has specially-allocated time for fulfilling the vital task of reviewing samples of children's work and visiting classes to monitor teaching in the subject.