Science Curriculum Policy 2024

Adopted by the Governing Body …Sep 2021

Last reviewed… September 2024……by J.Berry……

To be reviewed: September 2025

Science

Aims and Objectives

As Science is a core subject in the National Curriculum, it has a central place in our studies. Through Science we aim to extend our pupils' knowledge and understanding of the world.

The knowledge, skills and understanding in each programme of study identify the four areas of Science that pupils will study:

- scientific enquiry
- life processes and living things
- materials and their properties
- physical processes

Opportunities are provided for children:

- To develop knowledge and understanding of important scientific ideas, processes and skills and relate these to everyday experiences.
- To use scientific methods of enquiry.
- To develop scientific questioning and investigative skills.

We aim to foster such attributes as curiosity, independent learning and questioning, imagination, creativity and enthusiasm.

Teaching Methods and Learning Approaches

Teaching based on the National Curriculum, covering all four areas with an emphasis on investigations (AT1).

Time allocated to the teaching of science is approximately:

1 hour in Key Stage 1 per week.

1.5 hours in Key Stage 2 per week.

The school uses a variety of teaching and learning styles in Science. Teachers ensure that the children develop and apply their knowledge, skills and understanding when undertaking work. We do this through a mixture of whole class teaching, individual and group work.

Within lessons, we give children the opportunity to work on their own and to collaborate with others.

We have a focus on investigative, hands-on experiences for the children at Thrussington And class/ group investigations are recorded in a class Science books to minimise writing and maximise Science learning.

Children will have the opportunity to use a wide range of materials and resources Including I.C.T. such as presenting information, data logging, measuring pulse rates and producing/ simulating results.

In all classes, there are children of differing ability. We recognise this fact and provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child. We achieve this through a range of strategies:

- Setting common tasks that are open-ended and can have a variety of results;
- Setting tasks of increasing difficultly where not all children complete all tasks;
- Providing a range of challenges through the provision of different resources;
- Using additional adults to support the work of individual children or small groups.

Science is taught by the class teacher based on the Science units given in the new Science curriculum. Due to the mixed age classes, some areas require a short pre teach/ recap prior to starting the topic. Through visitors and visits, the skills, knowledge and understanding of science will be enhanced eg farm visit in Class 1.

To raise the profile of Science across the school and to inspire children we have an after school Science Club that runs for 4 terms a year. Through this the children have the opportunity to achieve a Crest Award. The last 2 years we have judged the Royal Society Science Book Award and have run a Science Book Club in school to judge this. In June we have our annual Science Fair which links school and home learning and Brings parents/carers into school to celebrate Science.

Outdoor Learning

We have our Forest School at the end of our field which we use to enhance our learning in Science. Each class has a half term of Forest School sessions led by our trained Forest School Leader. The website shows what activities the children have experienced. There is a separate risk assessment for this area.

SEN

We will provide effective learning opportunities for all pupils, with relevant and appropriately challenging work at every Key Stage. This may involve having mixed or similar ability groups working together, individual children receiving extra support fro the teacher or TA, varying content or presentation or allowing more time for a child to complete a task, are some of the many strategies the teacher may employ. Teachers may plan further differentiation by extending the breadth and depth of study within individual subjects or by planning work which draws on the content of different subjects.

"Science stimulates and excites pupils' curiosity about phenomena and events in the world around them. It also satisfies the curiosity with knowledge. Because Science links direct practical experience with ideas, it can engage learners at many levels"

(Science National Curriculum)

Assessment, Recording and Reporting

A range of low stakes assessments are used to give teachers an overall profile of the child's knowledge, skills and understanding, such as observation, practical tasks, extended writing, annotated drawings, questioning and concept maps.

In September 2021 we adopted a new progression grid which can follow children throughout the school to enable prior learning to be revisited before new learning is introduced. Any gaps in knowledge can then be identified and pre-teach interventions planned for by the class teacher.

In Key Stage 1, the assessment and recording differ slightly to Key Stage 2. In Reception, Science is covered in Understanding the World. Ongoing observations are used to assess progress and update the child's Learning Journey throughout the year. The children have weekly investigations in EYFS which enable them the opportunity to predict, investigate and question.

In the annual reports to parents, an end of year update is given to parents/carers on progress in Science.

The children's progress in Science is monitored and recorded in the child's personal profile.

Health and Safety

When planning work staff refer to the school's Health and Safety Policy. It is the responsibility of the curriculum co-ordinator to ensure that the requirements of the policy are met.

We also use the 'SAFE' document which is kept with our Science equipment.