

Thorpe Hesley Primary School



Science Policy

October 2021

Introduction

This document is a statement of aims, principles and strategies for the teaching and learning of Science at Thorpe Hesley Primary School. It was developed and is updated through consultation with all teaching staff. The learning and teaching of Science at Thorpe Hesley Primary School aims to promote Science as a core subject which is taught in weekly or longer twice weekly sessions across all Key Stages. Science is viewed as a practical subject which requires a multi sensory approach to stimulate curiosity, discussion and investigation.

Intent

We aim to provide a broad and balanced Science curriculum that develops scientific knowledge and motivates children to investigate and ask scientific questions as is the entitlement of all children. We ensure a variety of memorable experiences, including experiments and visitors, take place to broaden children's knowledge regardless of their ability or background. To ensure knowledge is embedded, many topics will be covered on more than one occasion throughout the children's schooling. In teaching Science there are a number of key skills and attributes that staff develop and children are taught to work scientifically, including:

- Developing an understanding of Science through enquiry and investigation;
- Observing, measuring and undertaking a variety of tests;
- Developing curiosity and asking scientific questions;
- Reading and using scientific vocabulary;
- Testing and developing ideas;
- Making decisions and developing a positive attitude towards science;
- Analysing functions, relationships and interactions;
- Answering science questions using different types of scientific enquiry; and,
- An enjoyment and fascination of science.

Implementation

The teaching of Science at Thorpe Hesley Primary School places an emphasis on scientific investigations and practical activities. Science is taught in weekly lessons and is also delivered through cross curricular links in other subjects. Lessons are differentiated according to children's learning requirements to ensure all learners can access the curriculum and make progress. Specific care is taken to ensure progression from the foundations stage through to key stages 1 & 2. When topics are revisited, another layer of knowledge and skills are added.

All units of Science are mapped out in the schools long and medium term planning and is refined in short term planning. This ensures content and skills are covered across the year. Our study of Science is based on the 2014 national curriculum. Teaching staff also have access to the Switched on Science scheme of work to provide lesson ideas. This scheme of work is adapted by staff in accordance with the learning needs of the children across their year group. The pupils have access to a broad and balanced curriculum. Through planning,

we involve problem solving opportunities that allow children to apply their knowledge and find out answers for themselves. Planning includes staff creating engaging lessons, often involving high-quality resources to aid understanding of conceptual knowledge. Working scientifically skills are embedded into lessons to ensure these skills are developed throughout the children's school life and new vocabulary and challenging concepts are introduced through direct teaching. In addition, children are offered a wide range of purposeful extra-curricular activities, visits, trips and visitors to compliment and broaden the curriculum.

Pupil work is assessed by direct observation when completing science activities and in discussion with the teacher, as well as on the finished work. Children's achievements are shared with parents regularly via consultations and invitations into school to look at children's work. A tracker is used to record the children's attainment and progress at the end of each year and throughout the key stages.

Scientific work is recorded in a variety of ways appropriate to the age of the children and their individual needs in each key stage. This can include teacher observations, photographs, drawings, tables, graphs, written accounts and formal write ups. It is expected that all recorded science work is to be presented to a high standard but not to the detriment of science investigations or the teaching and learning aspect of the lesson. The balance of practical activity and length of recording tasks is carefully planned to maintain a scientific emphasis.

Safe working practices are an integral part of all Science activities. All staff are aware of safe and correct handling of tools, materials and equipment. The teaching staff demonstrate to children how to work safely and ensures that all children using equipment are properly supervised.

Impact

The successful approach at Thorpe Hesley Primary School results in a fun, engaging, high-quality science education for all of our pupils, which provides children with the foundations and knowledge for understanding the world. Our engagement with the local environment ensures that children learn through varied and first hand experiences of the world around them. Through various workshops, trips and interactions with experts, children have the understanding that science has changed our lives and that it is vital to the future of the world. Children learn the possibilities for careers in science as a result of our community links and have access to positive role models within the field of science from the immediate and wider local communities. From this exposure to science, all children are able to feel they are scientists and capable of achieving. Children at Thorpe Hesley enjoy science and this results in motivated learners with sound scientific understanding.