

Hanover Primary School Science Policy

At Hanover Primary School we value Science because;

- It makes an increasingly important contribution to all aspects of life and in an era of climate change, we recognise that this generation and the coming generations face increasing scientific challenges locally and globally.*
- All children are naturally curious about their environment and Science makes a valuable contribution to their knowledge and understanding of the world .*

Aims

These aims are intended for all pupils in school. How they are implemented will be dependent on the age and ability of the pupils.

- *To build upon the best primary practice of learning where possible through investigation and first-hand experience, within the child's physical environment.*
- *To develop knowledge and understanding of important scientific ideas, processes and skills and to relate these to everyday experiences.*
- *To learn about ways of thinking and of finding out about, and communicating ideas.*
- *To explore values and attitudes through Science.*

Teaching

Where possible Science will be integrated into the teaching of the IPC. Where this is not possible, Science will follow National Curriculum attainment targets. QCA units of work may be slotted in where they fit with current IPC practice to provide teachers with a framework to support their teaching and the children's learning.

The teaching method employed will vary according to the age, ability and experience of the children and the concept being taught.

Where possible, children will devise and carry out their own investigations and explore scientific concepts through direct teaching, hands on experiences, trips and visits. At other times the teacher may find it more appropriate to demonstrate a concept to the children.

Assessment and Record Keeping

All class teachers will use their assessment of the children in their class to plan appropriate work in Science. Class teachers will make

an assessment of each child's progress in Science every half term, and keep appropriate records of achievement. Science progress is to be recorded on the tracking system. Mid year tracking should indicate the average level (found by looking at the 3 units of science that have been taught and assessed, and averaging the level attained by each child). End of year science levels should be recorded based on the average score across the 5-6 units taught and assessed that year. Additionally, teachers are asked to save a word document that they update with levels attained for each child in each unit of science taught that year. Estimated end of year levels should be set based on previous years attainment. This document should be saved in the assessment folder and science sub folder on the staff drive.

Class teachers will identify assessment opportunities in their medium term planning. Each unit of Science should be assessed at the end of the unit and records kept to show each child's understanding of the various scientific concepts they have learnt. In this way, assessment is

built into teaching and not simply added on at the end. The teacher will then be able to use their assessment of children's progress in Science to plan further appropriate work. Records of each pupil's progress are kept by their teachers and handed on at the end of the year. Where possible, children should be encouraged to make assessments of their own learning within Science. This can be done as teachers feels appropriate for the age of the children they are teaching, but should look at each child's feelings about their understanding in Science. It could include how confident a child feels about using scientific terms, planning and reporting experiments, and where they feel they are uncertain in their learning.

Foundation Stage assessment

Assessment in the Foundation stage is in line with the Early Years Foundation Stage curriculum and is taught and assessed through Knowledge and Understanding of the World.

Key Stage 1 (assessment)

Assessment is an on-going process brought about by:

- *Observation of children working.*
- *Discussion with children – before, during and after working.*
- *Looking at/marking children's work.*
- *Specific assessment tasks planned by the teacher.*
- *Assessment tasks (end of teaching unit)*
- *Introducing self assessment for children within each area.*

Key Stage 2 (assessment)

As for Key Stage 1, but may also include use of old SATS papers to look at overall science understanding for Year 5 and 6 children if the teacher feels this is appropriate.

Cross-Curricular Connections

As an IPC school, the teaching and learning of science should be linked with as much of the topic work as possible. This will help the children to understand how science fits into all aspects of everyday life. Planning should show where science opportunities are being taken within the IPC and also what steps are being taken to fill any gaps identified.

Resource Management

The school's Science resources are stored in the science cupboard on the top floor. Resources have been audited and new resources purchased. Materials should be easy to locate being found in labelled boxes on the shelves. Some of the resources have been left in the manufacturer's own packaging.

We as a staff are responsible for returning Science equipment when we have finished using it. Any damaged or incomplete equipment should be reported to the Science co-ordinator as soon as possible.

We all agree that the quality and availability of resources must be maintained and that children should value the school's equipment. As funding allows, the range of resources will be updated and extended as necessary.

Role of the Manager

The role of the Science Manager is:

- To monitor the quality of science teaching.*
- To co-ordinate the teaching of science within the school.*
- To monitor the use of the policy and the teaching of science within the IPC.*

- *To ensure that there are no gaps in the children's learning as a direct result of IPC.*
- *To ensure continuity and progression of the teaching and learning of Science across the key stages and the school.*
- *To order and maintain resources.*
- *To manage the Science budget.*
- *To make staff aware of changes / thinking in Science.*
- *To support staff who are less confident with Science.*
- *To make staff aware of Science courses on offer and encourage them to attend.*
- *To provide where necessary, staff training and development.*
- *To show, by example, good Science practice.*