



Castlemorton CE Primary - Science Statement

Intent

Science teaching at Castlemorton CE Primary School aims to give all children a strong understanding of the world around them whilst acquiring specific skills and knowledge to help them to think scientifically, to gain an understanding of scientific processes and also an understanding of the uses and implications of Science, today and for the future.

At Castlemorton CE Primary School, scientific enquiry skills are embedded in each topic the children study and these topics are revisited and developed throughout their time at school. Topics, such as Plants, are taught in Key Stage One and studied again in further detail throughout Key Stage Two. This model allows children to build upon their prior knowledge and increases their enthusiasm for the topics whilst embedding this procedural knowledge into the long-term memory.

All children are encouraged to develop and use a range of skills including observations, planning and investigations, as well as being encouraged to question the world around them and become independent learners in exploring possible answers for their scientific based questions. Specialist vocabulary for topics is taught and built up, and effective questioning to communicate ideas is encouraged. Concepts taught should be reinforced by focusing on the key features of scientific enquiry, so that pupils learn to use a variety of approaches to answer relevant scientific questions.

Implementation

A two-yearly cycle of topics is planned as an overview of teaching and learning. This is reviewed, adapted and can flex with the needs of the children. As part of the planning process, teachers plan the following:

- An elicitation task – to determine a starting point for lesson planning. This can check the children's general knowledge about a science topic or prior learning
- A knowledge organiser which outlines key knowledge (including vocabulary) supporting children to 'know more'; used as an aide memoire and to support retention and recall.
- A cycle of lessons for each subject, which carefully plans for progression of skills and depth of understanding. Key questions and key skills make up the sequence of learning. Children use the key questions as a starting point for their own enquiry and opportunities are built in for children to reflect on their learning.
- Enquiry approaches and skills that are developed over time.
- Challenge questions for pupils to apply their learning in a philosophical/open manner.
- Teachers may also plan trips and visits from experts who will enhance the learning experience.

Impact

Our Science Curriculum is high quality, well thought out and is planned to demonstrate progression. If children are keeping up with the curriculum, they are deemed to be making good or better progress. In addition, we measure the impact of our curriculum through the following methods:

- A reflection on standards achieved against the planned outcomes from ASE documents. These act as external validation and allow us to compare and moderate examples of work beyond our school.
- Formative and summative assessments against key questions and expected outcomes.
- Pupil conversations about their learning, where they bring their books and any other science work as evidence for discussion.

Feedback is on the whole given verbally with misconceptions addressed as quickly as possible. Written feedback methods are used when verbal feedback in a lesson has not been practicably possible. Assessments made from reviewing the children's work are noted and used to inform planning so that misconceptions can be addressed and learning moved on. Key spellings are picked up and this is managed carefully according to the child's needs. Formative assessments are made against key questions and these assessments inform planning, support end of unit summative assessments and end of year reports.