Chapelford Village Primary School

Science Curriculum Statement

Intent

At Chapelford Village Primary school our intent is to give every child a broad and balanced Science curriculum which enables them to confidently explore and discover what is around them, so that they have a deeper understanding of the increasingly scientific and technological world we live in. In our school, Science is about developing children's curiosity and ideas which is achieved through providing children with exciting, practical, hands-on experiences allowing them to apply their scientific skills. We believe that a broad and balanced Science education is the entitlement of all children, regardless of ethnic origin, gender, class, aptitude or disability. We want the children to have no limits to what their ambitions are!

Our aim is that these challenging and engaging experiences allow every child to:

- Secure and extend their scientific knowledge and vocabulary.
- Achieve a growing understanding of the nature, processes and methods of scientific ideas.
- Develop their natural curiosity and develop a scientific approach to problems.
- Develop the use of computing in investigating and recording.
- Encourage open-mindedness, self-assessment, resilience and develop the skills of investigation – including: observing, measuring, predicting, hypothesising, experimenting, communicating, interpreting, explaining and evaluating.
- Make links between Science and other subjects.

At Chapelford, we want to equip our children with not only the minimum statutory requirements of the science National Curriculum but to prepare them for the opportunities, responsibilities and experiences of later life.

Implementation

- At Chapelford Village Primary School, Science topics are taught within each year group in accordance with the National Curriculum. We also use CUSP curriculum materials to support the children's learning.
- Every year group will build upon the learning from prior year groups therefore developing depth of understanding and progression of skills.
- Teachers promote enjoyment and encourage interest of the scientific disciplines; Biology, Chemistry and Physics.
- To help develop children's ability to 'know more and remember more' there are regular opportunities to review the learning taken place in previous topics as well as previous lessons.
- At the start of each topic, children have the opportunity to demonstrate the knowledge and vocabulary that they already acquire in a pre-learn. This is then completed again at the end of the topic which allows children to see their progression.
- The children complete cumulative quizzes throughout the topic as a form of assessment which informs teacher's planning and ensures misconceptions are addressed.
- Teachers also use highly effective assessment for learning in each lesson to further ensure misconceptions are highlighted and addressed.
- Children explore, question, predict, plan, carry out investigations and observations as well as conclude their findings.

- Children present their findings and learning using science specific language, observations and diagrams.
- Children are given a CUSP knowledge strip for each lesson which details the key Science Curriculum information and vocabulary to further support their acquisition of knowledge and are used as a reference document.
- To support teaching, teachers access a range of resources from the CUSP curriculum.
- Teachers effectively use working walls to support children's learning in science. They include models, knowledge mats, key vocabulary, children's work and useful texts.
- Effective use of education visits and visitors are planned, to enrich and enhance the pupil's learning experiences within the Science curriculum.
- Effective modelling by teachers ensures that children are able to achieve their learning intention, with misconceptions addressed within it.
- Working Scientifically' skills are embedded within the content of each topic of learning so that pupils learn to use a variety of approaches to answer scientific skills.
- Through using a range of assessment tools, differentiation is facilitated by teachers, to ensure that each pupil can access the Science curriculum.
- Cross-curricular links are planned for, with other subjects such as Maths, English and Physical Education.
- Our Subject Assessment Tracker allows us to use data to inform future practice.
- Each year we also complete a school 'Science Week'. Science weeks at Chapelford are always a favourite and something all our children really look forward to as it is a chance for the children to broaden their knowledge of science within and outside of the curriculum, relate this to current, real-life issues, as well as developing cross-curricular opportunities and further develop their love for the subject as we provide exciting and engaging visits. In previous years, our themes have included:

    - Extraordinary Earth, a focus on physics: how a meteorite caused a huge surprise.
    - Understanding the impact of plastic on our planet and within our oceans.
    - Exploring the diversity of science across our planet, including the diversity of science careers

Impact

At Chapelford Village Primary school, the quality of our science curriculum is high and coherently planned to ensure progression within children's learning, knowledge and use of scientific vocabulary and their application and understanding of scientific skills. It also gives children high aspirations, which will see them through to further study, work and a successful adult life.

We measure the impact of our teaching within science through the following methods:

1. Regular monitoring of the teaching and learning within science across the school via learning walks and book scrutinies completed by the science leaders, SLT and external agencies. (Reports written and shared with staff, SLT and Governors)

2.Through Pupil voice, children will be able to articulate their knowledge and understanding as a scientist selecting appropriate vocabulary confidently and accurately, explain how science shapes our world and say if they know more, remember more and understand more

3. Through moderation of learning within books with science leaders and class teachers to ensure and qualify judgements.

4. Through planned post learning tasks, the class teacher (and subject leader) will be able to see how well a child has understood their learning and whether they can apply knowledge and skills and use appropriate scientific vocabulary.