Science Policy at Chilmark and Fonthill Bishop Primary School
Approved Nov 2020

Intent

Science is an important part of the curriculum at Chilmark as it helps our children to become effective problem-solvers and critical thinkers. These are two of the most important skills students learn because they are skills needed in every subject. Our curriculum begins in the Early Years and builds year on year. Knowledge from previous years is drawn upon in future learning and is taught around the key themes of Scientific knowledge and Scientific skills.

Having secure scientific knowledge helps our children to make sense of the world around them and make informed decisions. It is also the foundation that allows pupils to build critical thinking, reflecting and thinking on knowledge and concepts as the curriculum develops, this is a theme implicit in the progression of the national curriculum for science.

Scientific skills and fair test opportunities are important to our curriculum as the first-hand experiences helps learning to stick in memory.

Vocabulary is of crucial importance as this builds the foundations of their scientific understanding. This begins in the Early Years and is built upon in future learning.

School values

As a Church of England school, we place great importance on our eight words of power across our school and within all areas of the curriculum. In our Science curriculum, resourcefulness, resilience, reciprocity and respect are particularly important.

- Resourcefulness because the children have to find and use available resources to solve problems and achieve goals.
- Resilience because when mistakes are made or inconclusive results obtained, the children have to think how they can change the experiment/research to get more accurate results.
- Reciprocity because they need to work together, share ideas and help each other in group activities.
- Respect because they must listen to other peoples' ideas/ opinions and use this information in either developing or changing their own ideas.

Implementation

Despite, having mixed aged classes, our Science Curriculum is sequenced carefully. Pupils' knowledge and skills are built progressively so they can apply what they know from one context to another.

Scientific knowledge and **Scientific skills**

In Early Years and Key Stage One, we begin to build up children's knowledge of similarities and differences, patterns and change. We learn to ask simple questions, make observations and perform simple tests using simple equipment. We also learn to identify and classify, gather and record data and use our observations to answer questions.

In Key Stage Two, we learn to plan enquiries including recognising and controlling variables. We use appropriate techniques and materials, we take measurements using a range of scientific equipment. We record data /results using diagrams, labels, keys, tables, graphs and models. We report findings including oral and written explanations of results, causal relationships and conclusions. We present findings in written form, displays and other presentations. We use test results to make predictions. We set up further comparisons and fair tests. We know how to use simple models to describe scientific ideas. We identify scientific evidence used to support /refute scientific ideas.

Vocabulary

Vocabulary is extremely important across every year group. Early Years provides the foundation and year on year this built upon. Our vocabulary is sequenced across the year groups with some repetition. This vocabulary is taken from the knowledge progression document.

Impact

The impact of the teaching of Science at Chilmark is that pupils know more, remember more and can do more. This includes technical language linked to the subject, concepts and terms associated with the subject. These are all linked to the well sequenced progressions in vocabulary and knowledge. The impact of the curriculum is reviewed regularly. This is done within staff meetings, when staff bring examples of progress made (with a focus on the lowest 20%). It is done through book looks, when SLs look at the links made to prior learning and past units. SLs look at teachers planning, to see how the progression content is sequenced within the terms work, how it is linked to prior learning and how support is provided for the lowest 20%. Pupil voice will be used to explore how pupils can verbally demonstrate the vocabulary, knowledge and explain links between units of learning.
As the curriculum continues to develop we will take feedback from feeder schools to understand how the impact of the curriculum has improved the quality of learning in Key stage three.