



How we teach Science at Holy Cross



Subject intent

To develop a strong knowledge and understanding of scientific phenomena, be able to apply their knowledge to a range of scenarios and be able to communicate their understanding of science effectively.

Timetabling

Science should be taught once each week for at least one hour.
Timetable created by JK will indicate which days to teach Science.

Planning

Before the planning begins, teachers should become aware of children's starting points. In order to do this, a KWL grid is used to assess the children's knowledge coming into that topic. This is done at the beginning of each new topic as a class and is either presented in the floor book or on the working wall. Once their starting points have been identified, it will then be easier to plan appropriately for children and identify some misconceptions.

There should be one lesson a week planned on the MTP proforma (see Appendix 1) which is on the Tdrive in the planning folder. Each lesson is planned with a learning question as part of the curriculum of enquiry approach adopted by the school. In this planning, it is evident which working scientifically skill and enquiry type is being used for the lesson. There will be one skill of each. Planning from previous years can be found on the Tdrive to support teachers and the school has resources such as Plymouth Science to help with planning.

Planning should follow the whole school curriculum map for each term which will tell you what topics to teach and when (See Appendix 2).

Annual extras

(Working wall, evidence and children's work recordings, marking expectations)

There will be a working wall in each class which will contain the unit heading, key vocabulary for the unit, a working scientific wheel and an arrow pointing to the different scientific enquiries. The working scientific wheel will be crossed when it has been taught in a lesson to show coverage. These skills will be made explicit to the children.

Children's work should be recorded in a way that shows what the learning has been and the progress that has been made. This can be in the form of recordings in topic books or for more practical lessons then photos can be taken and recorded in the floor book with a brief written description about what the children have done or quotations of what the children have said. The learning question is evident in the floor or topic book so that the subject leader can correspond the evidence with the planning.

Marking should be purposeful for the children and make an impact on their learning and progress. It should be used to celebrate their learning success but also to challenge their misconceptions. If a child shows a misconception an "Even better if" (EBI) is to be given. If children have completed the task well then pink ticks should be used. Spelling of related scientific vocabulary will be corrected

Assessment of Science

At the end of the topic children are given an exit card (see Appendix 3) to help teachers assess the scientific knowledge. This card is stuck in at the beginning of the unit in topic books but is not complete until the topic has been completed. This exit card will contain the term, unit taught, vocabulary used (6 for KS1, 9-12 for KS2) and 4/5 questions based on the unit taught.

Teachers should use their teacher judgement and evidence from work through the topic and at the end of the topic to highlight if the child is Working Towards Expected, At Expected or at Greater Depth.

The working scientifically skills are assessed through ongoing, formative teacher assessment embedded within everyday science lessons. Teachers observe children as they plan investigations, make predictions, carry out practical activities, record results, and draw conclusions, looking for evidence of key skills such as questioning, observing, measuring, classifying, and communicating findings. Assessment is continuous and may include the use of questioning, discussion, annotated work samples, and informal checklists to track progress against curriculum objectives. Teachers often use pupil self-assessment, peer assessment, and practical tasks to gauge understanding and encourage reflection on the scientific process. Evidence is gathered from a range of contexts to build a holistic picture of each child's ability to work scientifically,

which is then used to inform planning, provide feedback, and support progression.

At the end of the academic year, years 1-6 are to assess children against their working scientifically skills. The working scientifically ladders (see Appendix 4) are used to help teachers. Teachers are to fill in the children's name in the box Working Towards or Working At Expected (see Appendix 5) and this document is passed on to the next teacher as part of transition.