



St Antony's Catholic Primary School



Science Curriculum

St Antony's Science Curriculum's Implementation:

Overview

At St Antony's the curriculum design, delivery and impact in this area is the subject lead's responsibility. We use the DfE's progression outline for science content to be taught as our Curriculum Map is closely mapped to the National Curriculum/ DfE's expectations and requirements. Keeping an eye on the quality of content and coverage as well as the teaching in this area includes regularly meeting with SLT and Education and Standards Link Governors to review and quality assure the subject area to ensure that it is being implemented well and coverage and breadth and balance is adequate. To ensure high standards of teaching and learning in science, we implement a curriculum that is progressive throughout the whole school. Science is taught in discrete lessons for at least 1 hour in Key Stage One and 1hour 30 minutes to 2 hours in Key Stage Two. We ensure that teachers have the same expectations during Science lessons that they would have when teaching English or Mathematics and that any mathematical task (such as measuring or drawing graphs or reporting data using statistics) is pitched at an age-appropriate level to ensure sufficient challenge. It is vital that any mathematical or English barriers should not impede a child's scientific learning, thus meaning dialogic learning is a central part to our science teaching and the use and application of scientific vocabulary is key.

Our Science Curriculum is Broad and Balanced

The science curriculum at St. Antony's Catholic Primary School is based upon the Primary National Curriculum in England, which provides a broad framework and outlines the knowledge and skills taught in each Key Stage. Teachers plan lessons for their class using our progression of knowledge and skills document, which incorporates Working Scientifically.

When teaching science, teachers are encouraged to take stock of and invest in the children's interests to ensure their learning is engaging, broad and balanced. Before planning a unit of work, teachers should assess children's prior knowledge and understanding to ensure work is pitched at the correct level.

Teaching Approaches Used

A variety of teaching approaches are used, inclusive of modelling, exploration and investigation- based on the teacher's judgement for the topic being covered. Teaching key subject specific vocabulary is also a key part out science curriculum. The vocabulary children will need for that unit is identified on the school's progression document and this builds upon the vocabulary they have learnt in earlier years. The key vocabulary will be identified in the vocabulary dozen on the children's knowledge organisers.

Science Assessment

Science Assessment is based on teacher's observation and formative assessment daily in each lesson with differentiated questioning and challenges posed within each activity to continually develop the skills of problem solving and strategic thinking in science. Peer and self-assessment is also used with the children using the assessments criteria outlined in the Scheme of work or the success criteria outlined for each task. Summative assessments or end of unit tests are applied half-termly and is then reported on the school's Assessment Lead and the percentage of children working at, above and below the expected standard are identified. At the end of Key Stage 1 and Key Stage 2 the results are shared with SLT and the Governors. At the end of each unit, teachers are able to identify if a child is working at the expected standard by using the Key Performance Indicators as the benchmarks. This data is then passed on to the next class teacher at the end of year 'hand over' as a record of the child's progress throughout the year so that the pitch and expectations in the next class is linked to prior learning. During Pupil Progress and Specified Subject Based Staff Meetings, science work is moderated against the exemplification standards published by DfE. At the end

of the year, the Science Lead always aids with preparing the Year 2 and Year 6 work in science to be externally moderated by the MAT and or LA alongside other schools.

Specific Scientific Skills taught

Science provides excellent opportunities to enhance the learning of more able pupils through planning lines of enquiry, asking opened ended problems, analysing results and drawing conclusions based on scientific findings.

At St. Antony's Catholic Primary School, we provide a variety of opportunities for science learning inside and outside the classroom. Learning outside of the classroom, especially in our " Explorations In The Park" setting, is an essential part to learning science in collaboration with West Ham Park which is just next door to the school. It is essential children observe and immerse themselves in their local environment to apply their learning practically to real-life situations.

Working in Partnership with Parents

We also believe it is important that parents are involved in their children's science learning in an ever-evolving world. Every year, we have a "Parent Science Workshop," where the subject leader gives parents an overview of the science curriculum covered across the school and plans simple, engaging practical activities for the children to complete with their parents at home throughout the year. This encourages them to ask questions about the world and demonstrate how they can think scientifically and investigate using simple everyday objects. This encourages families to engage with scientific activities themselves at home.

CPD in Science is offered to staff where needed, this may be a course to attend, an online CPD programme to take part in or the subject leader delivering training to the rest of the staff at a staff meeting or Inset day.