

St. Peter's Catholic Primary School



Science Policy

Date: June 2023 Review Date: Sept 2024

At St. Peter's Catholic Primary School, Jesus Christ and the Gospel values are at the centre of all of our teaching and relationships with children.

Introduction

At St. Peter's Primary School, we encourage the children to be curious and inquisitive in both their time at school and beyond, to develop their knowledge and understanding of the world we live in. We aim to not only inspire this curiosity, but also nurture a respect for living things and the natural environment around us. Throughout the programmes of study, the children will develop their scientific knowledge, in line with the National Curriculum, alongside having opportunities to apply these skills and work scientifically through investigation. The Working Scientifically skills are built-on and developed each year, so that the children can apply their knowledge of science when using equipment, conducting experiments, building arguments and explaining concepts confidently and continue to ask questions about their surroundings.

Children at St. Peter's Catholic Primary school will:

- Develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics.
- Develop an understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them.
- Be equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.
- Develop a positive attitude towards scientific learning and discovery.
- Develop a growth mind-set, using trial and error to persevere when investigating.
- Use equipment both safely and respectfully to aid their scientific enquiry.
- Learn to use scientific vocabulary consistently to describe their findings.
- Develop into independent learners and learn to work cooperatively with others.
- Use a range of methods to communicate their scientific information and present it in a systematic, scientific manner, including I.C.T., diagrams, graphs and charts.

Subject Organisation

Foundation Stage

In the Early Years Foundation Stage, Science is taught through the 'Understanding of the World' strand of the curriculum. Science is developed by building upon the children's natural curiosity and fascination for their environment and the world around them. Children are encouraged to use all their senses to investigate, explore and make predictions. A passion for Science is fostered by guiding children to make sense of their physical world and their community through opportunities to observe and find out about people, places, technology and the environment.

Key Stage 1 and Key Stage 2

Lesson structure and planning

In both key stages, 2 hour weekly sessions (or equivalent per half term) are taught, in line with the year group's current topic. Planning is done in key stage pairs and curriculum topics are rotated on a 2 yearly cycle to ensure coverage across that key stage group. Differentiation of content is considered to ensure both year groups can access appropriate topic content. Planning is produced on either Microsoft PowerPoint slides or Lynx slides. Teachers plan from 'Plymouth', which allows time to focus on topics by teaching in blocked units. These also address the aims of the 2014 National Curriculum including knowledge and understanding and working scientifically. Over the course of several lessons, the children will acquire topic relevant knowledge relating to the world around them and be given the opportunity to apply these skills in content linked investigations through working scientifically. The class collaborate to explore the same objective or question and all children are challenged and supported to gain a depth of understanding. Scientific vocabulary should be incorporated in every lesson in relation to topic objectives to ensure that the children are able to answer questions accurately and succinctly. Opportunities for self and peer assessment should be incorporated into every lesson. Children should consider what they did well and how to improve. Children are expected to perform to the best of their ability. All work should be self -assessed against 'I can' statements using traffic light colours and there should be indication of support from an adult.

Resources used in lessons

We have sufficient, high-quality science resources to aid and support the teaching of all units and topics taught, throughout the year groups. We keep these in a central store, where they are labelled and easily accessible to all staff. The school library also has a range of Science related books to support children's individual research.

Groupings and provision

Teachers will decide the most effective way of grouping children for their Science lessons and any such groupings will be flexible. Extra support is provided when needed in terms of knowledge or investigative skills. When possible, Science skills are developed across the curriculum, in line with the year group's current topic.

Exercise Books for recording

It is school policy that the following pattern is used:

Year 1: Portrait, A4, Red lined

Year 2 and KS2: Portrait, A4, Red, lined

Marking

Please see separate marking and feedback policy

In Key Stage 2, children will respond to any teacher comments in pink pen.

Role Subject Leader

- To take the lead in policy development.
- To support colleagues.
- To monitor progress in Science- e.g. leading staff CPD, scrutiny of work, analysis of formal data assessments.
- To take responsibility for the choice, purchase and organisation of central resources for Science, in consultations with colleagues.

- To liaise with other members of staff to form a coherent and progressive scheme of work, which ensures both experiences of, and capability in, Science.
- To be familiar with current thinking concerning the teaching of Science, and to disseminate information to colleagues.
- The co-ordinator will be responsible to the Head teacher and will liaise with the named link Governors.

Pupil Assessment

- Teacher assessments are entered three times a year and closely analysed by the subject leader and Senior Leadership Team.
- Class teachers are responsible for monitoring and evaluating the progress of their pupils'.
- Teacher assessment is influenced by end of lesson challenge questions and an end of topic 'Big Question' which demonstrate the pupil's independent understanding of the previous subject matter covered.
- Children are formally assessed in Year 2 and Year 6 according to SATS in line with end of Key Stage expectations. This is through teacher judgement.
- The Foundation Stage profile data is entered at the end of the year and closely analysed by the EYFS lead and Senior Leadership team.

Home School Link

We consider the relationship with parents to be an important factor in fostering positive attitudes towards Science. We involve parents in their children's learning by:

- Providing regular parent's evening, which gives them verbal information on their child's progress and targets for the future.
- Providing an end of year report, which outlines progress and attainment.
- Organising Science themed school days to promote a love for Science within the school community.