St Joseph and St Teresa Catholic Primary School
'Walking hand in hand with God, as we strive to do our best!"

Science Policy

Intent

At St Joseph and St Teresa we want our children to be curious and inspired to ask questions about the current world and future life. Through a balanced curriculum children will develop scientific skills and knowledge that can be transferred into inquiries and investigations.

Across the school, we want to develop a love of science and the natural world.

Implementation

Teachers create a positive attitude towards science throughout learning time and enthusiasm for the subject. Expectations are reinforced in each science lesson to ensure that the highest standard of learning is achieved. Our whole school approach to teaching and learning of science involves:

- Science will be planned and taught in the arranged blocks by the class teacher, following the 2 year rolling curriculum map.
- Existing knowledge, this is checked through mind mapping prior to learning. This ensures that the children are at the centre of their own learning. It takes into account starting points of each pupil and incorporates interests of the children. After the learning block, children will annotate their original mind-map with the new information they have gained.
- Throughout planning problem solving is encouraged, this is through the use of concept cartoons or Explorify problems. Teachers use precise questioning in class to test conceptual knowledge and skills, and assess pupils regularly to identify those children with gaps in learning, so that all pupils keep up. Children are reassured that they can ask questions during lessons to challenge their own and other children's learning. Curiosity is encouraged in lessons and celebrated.
- Knowledge organisers are used in lessons for children to refer back to for vocabulary and definitions. This will be available during lesson time, promoting independence and desire to learn.
- Teachers demonstrate how to use scientific equipment, and the various Working Scientifically skills in order to embed scientific understanding. Teachers find opportunities to develop children's understanding of their surroundings by accessing outdoor learning.
- Regular events, such as Science Week, allow all pupils to come off-timetable, to provide broader provision and the acquisition and application of knowledge and skills

Aims

We aim to deliver a curriculum that ensures all pupils:

- Develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics.
- Develop 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.
- Are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.

- To inspire a scientific curiosity and become creative and independent in their approach to scientific work.

Teaching and Learning

Teachers have a very clear understanding of how science is learnt best. They inspire a passion for science by delivering a curriculum that equips pupils in all year groups with excellent subject knowledge and understanding as well as the skills of scientific enquiry, across the three main areas of biology, chemistry and physics.

Teachers facilitate children's curiosity for scientific knowledge and enquiry through investigations and explorations. Pupils are able to think for themselves, take the initiative and raise their own questions about science knowledge, understanding and scientific enquiry. Where appropriate teachers use will use first-hand experiences, visits, visitors, artefacts and the local and wider community to provide good opportunities for pupils to experience awe and wonder.

Teachers will use the schemes of work, supported by an appropriate range of teaching and learning resources, to plan and deliver progressive and challenging lessons. In the Foundation Stage, science is planned for using the Early Learning Goals for Knowledge and Understanding of the World. As a school, opportunities to promote spiritual, moral, social and cultural development are systematically planned and delivered to ensure every pupil benefits.

Science forms a part of many other subjects within our school through research, investigation and recording. Scientific skills such as questioning and observation are used throughout the curriculum. Links with other curriculum areas, especially English, Maths and ICT are utilised through activities planned by the teacher.

Inclusion

The school's practice consistently reflects the highest expectations of staff and the highest aspirations for all pupils through a variety of approaches and tasks appropriate to the needs of the 'whole child'.

Assessment

Children are assessed through formative and summative processes - observing the children working, questioning and considering children's work and using Bath Spa TAPS Assessments. The children's progress in science is continually monitored and tracked. This data is used to enhance every pupil's performance throughout their time within our school.

Leadership

It is the role of the Science Lead to take the lead in policy development and help in the production of schemes of work designed to ensure progression and continuity in science throughout the school. They support colleagues in their development of detailed work plans, their implementation of the scheme of work and in assessment and record keeping activities.

Resources

We will use financial resources to build up an extensive collection of resources, artefacts and books to support the teaching and learning of science.

Health and Safety

Children's health and safety is foremost in all science planning and trips. Children are made aware of potential hazards and are taught to use all equipment safely. All science teaching and learning is in line with the Health and Safety policy.

Related policies to be considered:

EYFS

Assessment for Learning

Inclusion and Equal Opportunities

Health and Safety

2023