St. Mary's Catholic Primary School, Wrexham

Key Stage 2 Science Policy

Learning and Loving
Caring and Sharing
through
The message of Christ

St Mary's Catholic Primary School is a happy community where we are loved and valued as individuals.

As Disciples of Jesus, we learn together, pray together and celebrate together as one in God's love.

Together with parents/carers, the parish and the wider community, we prepare our children to live and build God's kingdom on earth.

1. AIMS

- To develop pupils' enjoyment and interest in science
- To develop pupil understanding of key scientific concepts and scientific skills
- To enable pupils to effectively communicate scientific ideas by using scientific vocabulary
- To develop positive attitudes which encourage collaborative learning and independent thinking.
- To develop pupils awareness of how science influences and affects our everyday lives.

2. THE SCIENCE CURRICULUM

At Key Stage 2, learners should be given opportunities to build on the skills knowledge and understanding acquired during the Foundation Phase. They should develop their skills through the range of Interdependence of organisms, the sustainable Earth and how things work. Learners should be taught to relate their scientific skills, knowledge and understanding to applications of science in everyday life, including current issues. They should be taught to recognise that scientific ideas can be evaluated by means of information gathered from observations and measurements. Teaching should encourage learners to manage and lead their own learning and develop learning and thinking strategies appropriate to their maturity. They should be taught to value others' views and show responsibility as local/world citizens. Activities should foster curiosity and creativity and be interesting, enjoyable, relevant and challenging for the learner. They should enable learners to initiate, explore and share ideas. In addition to extending, refining and applying their skills, knowledge and understanding in new situations. They should allow time for thinking, peer discussion and reflection.

3. APPROACHES TO TEACHING & LEARNING

Scientific Enquiry

Science is taught with an emphasis on the pupils engaging in practical enquiry to support/develop their understanding of scientific concepts and skills. Teachers use a range of strategies including: exploration, investigative enquiry and illustrative enquiry. Teachers try to ensure that the child most of the children's ideas are used as a basis for enquiry.

Developing Language in Science:
Science contributes significantly to the teaching of language in our school by actively promoting the skills of reading, writing, speaking and listening. Some of the texts that the children study in language lessons are of a scientific nature.
The children develop oral skills in science lessons through discussions (for example of the environment) and through recounting their observations of scientific experiments/investigations. They develop their writing skills through writing reports/projects and by recording information.

Developing Maths in Science
Children use standard measures and S.I. units, e.g. kg, s, N, m. They make careful observations and accurate measurements, using digital and ICT equipment at times. Children check observations and measurements by repeating them in order to collect reliable data.

Developing ICT in Science
Pupils are taught to use a range of ICT equipment to enhance their scientific learning eg. ipads to record investigations, data loggers for accurate measurements of temperature and digital microscopes for close observation.

Developing Curriculum Cymreig in Science
Science contributes to the Curriculum Cymreig through the use of contexts that are relevant to learners' lives in Wales. The rich and varied environment around learners gives the basis for fieldwork. Learners have the opportunity to study recycling, sustainability and the impact of humans within their locality and further afield.

Developing PSE in Science
Pupils turn their own ideas into a form that can be investigated. They outline the planned approach/method recognising, deciding upon and giving some justification for each of the following when appropriate:

- Any hazards and risks to themselves and others

Recording pupils work
Pupils are taught and encouraged to use a range of recording strategies to communicate their ideas and scientific findings eg use of ipads, Seesaw, illustrations etc

4. THE MONITORING OF STANDARDS

Responsibility of the Class teacher

Teachers assess pupils according to the key skills and subject knowledge. Teachers encourage child led planning. This information is used to inform teaching and learning.

Marking and feedback is used to acknowledge achievements and to show the pupils what they need to do in order to improve.

Scientific spellings are modelled and corrected.

A written report in respect of pupils' progress in science is provided annually to parents.

5. RESOURCES

Class teachers are responsible for informing the Science Leader and Head teacher of resources that are required in order to deliver their planned tasks.

Information on science topics is readily available on the internet and a range of non fiction texts relating to science topics are available on a variety of websites eg Classroom Secrets.

Science based workshops and organisations are regular features of the school year.

The whole school environment is used to maximum potential in order to support delivery of the science curriculum.

School visits are planned regularly to enhance learning and help the pupils to relate scientific enquiry to the real world.

6. HEALTH AND SAFETY

The safe use of equipment and materials is promoted at all times.

All accidents and incidents are reported to the Head teacher who makes a decision as to the appropriate action.

7. ADDITIONAL LEARNING NEEDS

The study of science is planned to provide pupils with a suitable range of activities and support appropriate to their abilities and needs.

Curriculum planning ensures that all pupils have an equal opportunity to take part in every aspect of the science curriculum.

Gender, disability and cultural differences are reflected positively in the school.

8. THE ROLE OF THE SUBJECT LEADER

- The traditional role of the coordinator/subject leader has evolved to a more partnership based/ collaborative team approach.
- All members of staff have the opportunity to lead staff meetings/ deliver in-house training sessions at key stage and whole school level demonstrating excellent opportunities for collaborative professional learning.

We have carefully considered and analysed the impact of this policy on equality and the possible implications for pupils with protected characteristics, as part of our commitment to meet the Public Sector Equality Duty requirement to have due regard to the need to eliminate discrimination, advance equality of opportunity and foster good relations.

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