Priestsic Primary and Nursery School

Policy for Science

Introduction

This policy outlines the teaching and management of science at Priestsic Primary and Nursery School. The school's policy for science is based on the National Curriculum for key stages 1 and 2 and a knowledge based approach to learning. The policy has been drawn up to reflect our whole school approach to science which involves learners using a question as the starting point to their learning. This has been discussed with staff and has the agreement of the Governing Body. The implementation of this policy is the responsibility of the teaching staff.

Aims

- Asking relevant questions and using different types of scientific enquiries to answer them.
- Setting up simple practical enquiries, comparative and fair tests.
- Making system and careful observations and where appropriate, taking accurate measurements.
- Gathering, recording, classifying and presenting data in a variety of ways to help to help in answering questions.
- Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.
- Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.
- Using results to draw simple conclusions and make predictions for new values, suggest improvements and raise further questions.
- Identifying differences, similarities or changes related to simple scientific ideas and processes.
- Using straight forward scientific evidence to answer questions or to support their findings.

Equal Opportunity

We are committed to providing a teaching environment conductive to learning. We promote British Values through our curriculum. Each child is valued, respected and challenged regardless of ability, race, gender, religion, social background, culture or disability.

Teaching Science

Teaching science at Priestsic Primary School is rooted in the progression of knowledge and understanding of the key concepts from the National Curriculum. There is no set model for the amount of time given over to the teaching of science on a weekly basis. The time spent on science may vary from term to term and in each unit that is taught. All teaching staff choose at their own discretion how they allocate the amount of time needed to cover the strands of the National curriculum. The responsibility of ensuring adequate coverage of the National Curriculum for science lies first with the subject co-ordinator but ultimately the individual teacher. At Foundation Level, science is an integral part of the EYFS Curriculum - 'Understanding the World'. Links will also be made to other subjects so that pupils can develop and apply their scientific skills.

Class Organisation

In each year group, science is taught in such a way as to enable learners to gain knowledge and understanding and develop scientific skills. The children benefit from whole class or group teaching as well as being

encouraged to work individually, finding out information, practising skills or thinking scientifically by themselves.

Out of Class and Homework

Science lessons will provide opportunities for the children to develop scientific skills, knowledge and understanding according to the National Curriculum. However, science lessons should be a vehicle to motivate children to extend their learning beyond the classroom. Although no formal regular homework is give in this subject area teachers will encourage children to find out information and practise scientific skills out of school time in a variety of ways. In addition, teachers will provide opportunities to share and value the children's efforts outside school within future lessons.

Links between Science and other subject areas.

Science contributes to many subjects within the primary curriculum and opportunities will be sought to draw scientific experience out of a wide range of activities. Links will be made where appropriate and applicable to enable learners to deepen their knowledge and understanding of key concepts for example habitats and geography. This will allow children to begin to use and apply scientific skills and knowledge in real contexts.

Environmental Education

The school garden is used regularly for gardening and scientific study e.g: bug hunt, plant study and rock hunts. Within our schemes of work, units naturally lend themselves to developing the children's knowledge, understanding, concern and care for the environment. As a result of teaching about the environment, every encouragement is given to the children to apply the principles of energy efficiency, water conservation, waste reduction and recycling and litter control. Recycling is actively encouraged throughout the school and every classroom has its own recycling box. Links with Geography will be further strengthened this year. All year groups will learn about environmental issues which are local, national and global.

School and Class Organisation

How we cater for pupils with specific needs
Most science lessons are appropriate for all children since the teacher will differentiate as necessary for those children with specific needs. Teachers aim to include all children in science lessons. All children will benefit from aspects of the lesson, such as discussion and other children communicating and sharing ideas. However, a pupil whose difficulties are severe or complex may need to be supported by an additional adult where appropriate.

How we work in the Foundation Stage
Science activities are planned in line with the EYFS Curriculum Guidance.

Resources

Science equipment to be used across the age range and resources related to the environment are stored in the Priestsic Road block. Video and DVD resources, teachers' books and activity ideas are also found in this area.

Health and Safety

In their planning of activities, teachers anticipate likely safety issues. They also explain the reasons for safety measures and discuss any implications with the children. Children should always be encouraged to consider safety for themselves, other, the environment and the resources they use when undertaking scientific activities.

Computing

Technology will be used in various ways to support teaching and learning. Technology involves the computer, i-pads, data loggers, cameras, video recorders and other audio-visual aids. Teachers may use some of the freely available resources on the Internet, which allow for effective teaching of science, including virtual 3D immersive technology, interactive games and multimedia clips to enhance their lessons. Computing provides the opportunity for children to interact with difficult abstract concepts that cannot always be done practically. An example would be year 5 using 'Planet 10' and 'Google Earth' which provide a virtual tour of the solar system.

Assessment

Assessment will take place at two levels formative and summative. These assessments will be used to inform teaching in a continuous cycle of planning, teaching and assessment. Formative assessment is an informal part of every lesson and is used to check the children's understanding and give the teacher information to adjust future lessons. TAF is used at the end of key stage 1.

Planning

The planning of science remains the responsibility of the individual teacher, but teachers are expected to outline, the key knowledge and concepts to be studies on their planning, how and where science fits into the curriculum for their year group according to statutory requirements.

Management of Science

Role of the Co-ordinator

- To be a role model and demonstrate good practice
- Keep the written policy document and scheme of work up to date and evaluate the content and method.
- Encourage and support staff in the implementation of the agreed procedures and closely monitor the progression of activities and consistency of approach across both year groups and Key Stages through lesson observation.
- Arrange INSET as appropriate to meet the needs of individual and the school.
- Purchase and organise all science resources, ensuring they are readily available and well maintained.
- Monitor teachers' planning as part of on-going subject monitoring and evaluation of practice.
- Compile portfolios of children's work to evidence progression.
- Liaise with other post holders to ensure coherence across subject areas.
- To be aware of National and Local developments through reading relevant materials and attending courses as appropriate.
- Submit regular feedback on standards in science to the SLT.
- Work to achieve equality of opportunity throughout the School.