



ST. ANNE'S C.E.(VC) PRIMARY SCHOOL

Science POLICY

'Together with God, Making Learning a Life Long Friend'



OUR VISION FOR Science

Science at St Anne's Primary School should stimulate enquiry, develop creative thinkers and equip children with the ability to test their ideas through a science based methodology.

It is our aim in Science that children are given opportunities to observe, record and draw conclusions about the world around them. We hope to introduce children to the basic elements of experiments and investigations and help them to become more inquisitive. This policy outlines the teaching and learning of Science at St Anne's Primary School. The implementation of the policy is the responsibility of all teaching staff and will be monitored by the Science Co-coordinator and Head Teacher.

SUBJECT AIMS AND OBJECTIVES

At St Anne's C.E, V.C. Primary School we aim to provide an education in Science that:

- Develops children's knowledge and understanding of important scientific ideas, processes and skills and relate these to everyday experiences.
- Acquire a curious and questioning mind.
- Develop skills of observation and investigation.
- Collect, retrieve, present and communicate their findings to others in a variety of ways.
- Acquire and refine the practical skills needed to investigate questions safely.
- Develop skills of predicting, asking questions, making inferences, concluding and evaluating based on evidence and understanding and use these skills in investigative work.
- Applies practical mathematical skills in science based real life contexts.
- Learn why numerical and mathematical skills are useful and helpful to understanding scientific concepts, support investigation and testing work.
- Think creatively about Science and enjoy trying to make sense of phenomena.

- Develop language skills through talking about their science work and presenting their own ideas using sustained and systematic writing of different kinds.
- Use scientific and mathematical language including technical vocabulary and conventions and draw diagrams and charts to communicate scientific ideas.
- Read non-fiction and extract information from sources such as reference books, CD-ROMs or the Internet.
- Work with others, listening to their ideas and treating these with respect.
- Develop respect for evidence and evaluate critically ideas, which may not fit evidence available.
- Develop a respect for the environment and living things and for their own health and safety.

SUBJECT LEADER

The member of staff responsible for leading Science at St Anne's is Mr Anthony Jones.

TEACHING APPROACHES

The school uses a variety of teaching and learning styles in science lessons through teaching, independent research and practical investigation. Our principal aim is to develop the children's knowledge, skills and understanding. Children are encouraged to develop their own questions about the world around them and test them.

We recognise the fact that we have children of differing ability in all our classes, and we provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child. We achieve this through a range of strategies:

- setting tasks that are open-ended and can have a variety of responses;
- setting tasks of increasing difficulty, where not all children complete all tasks;
- providing a range of challenges with different resources;
- having more adults support the work of individual children or small groups.

We celebrate children's work through classroom displays, exemplar files, sharing work and locally within the community.

PLANNING

Science is a core subject in the National Curriculum and we implement the statutory requirements of the Science Curriculum.

The Programme of Study for science forms our long-term plan and details what is to be taught in each year group. These plans define what we teach, and ensure an appropriate balance and distribution of work across each year and ability group.

Class teachers are responsible for short term plans. There is no specific format for these plans, but they should include specific learning objectives for each lesson, and give details of how the lessons are to be taught as well as the role of the teacher and teaching assistants within each lesson. The class teacher keeps these individual plans and passes a copy on to the other adults who work with the children.

CONTRIBUTION OF SCIENCE TO THE DEVELOPMENT OF SMSC EDUCATION

The teaching of Science offers opportunities to support the social development of our children through the way we expect them to work with each other in lessons. Groupings allow children to work together, and give them the chance to discuss their ideas and feelings about their own work and the work of others. Their work in general helps them to develop a respect for the abilities of other children, and encourages them to collaborate and cooperate across a range of activities and experiences. The children learn to respect and work with each other and with adults, thus developing a better understanding of themselves. It is hoped that the teaching of the Science curriculum will also encourage them to develop ability to approach any problem in a logical way.

INCLUSION

At our school, we teach Science to all children, whatever their ability and individual needs. Science forms part of the school curriculum policy to provide a broad and balanced education to all children. Through our Science teaching, we provide learning opportunities that enable all pupils to make good progress. We strive hard to meet the needs of those pupils with special educational needs, those with disabilities, those with special gifts and talents, and those learning Science as an additional language, and we take all reasonable steps to achieve this. For further details, see separate policies: Special Educational Needs; Disability Discrimination. When progress falls significantly outside the expected range, the child may have special educational needs. Our assessment process

looks at a range of factors – classroom organisation, teaching materials, teaching style and differentiation – so that we can take some additional or different action to enable the child to learn more effectively.

ASSESSMENT AND RECORDING

Children demonstrate their ability in Science in a variety of different ways. Younger children might develop the understanding of their world through an activity linked to good health, through making a healthy snack, whilst older pupils may ask a relevant scientific question, plan an investigation, carry it out and write up their findings while evaluating their methodology. On completion of a piece of work, the teacher assesses the work and uses this information to plan for future learning. Written or verbal feedback is given to the child to help guide his or her progress. Older children are encouraged to make judgements about how they can improve their own work.

At the end of a unit of work, s/he makes a summary judgement about the work of each pupil in relation to the National Curriculum. We use these grades as the basis for assessing the progress of each child, and we pass this information on to the next teacher at the end of the year.

The information is to be recorded on the staff computer based assessment system on an excel spreadsheet that relates to year based objectives.

The subject lead also creates an exemplar folder of photographs which demonstrates class trips, visiting speakers, activities and practical experiences.

RESOURCES

The following resources are used within the teaching of Science across the school:

- A computer based shared system that contains support materials for the purpose of planning, assessment and mental starter activities.
- Tig-tag world (On-line service that provides a range of stimulating ideas, planning and other visual resources)
- Rising Star text base planning and activity resources specific to year groups.
- A range of physical resources are available within a dedicated store room. These are to be used to support a stimulating learning experience during lessons and for the purpose of topic displays.
- Other older supporting texts/schemes can also be used to support the delivery of science where relevant.

MONITORING AND REVIEW

The monitoring of the standards of children's work and of the quality of teaching in Science is the responsibility of the subject leader. The work of the subject leader also involves supporting colleagues in the teaching of art and design, being informed about current developments in the subject, and providing a strategic lead and direction for the subject in the school.

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