

Queensbridge Primary School Science Policy
April 2010

Creating future stars...

Queensbridge Primary School is a safe, positive, stimulating and welcoming environment that offers all a sense of belonging.

We give everyone an enjoyable experience of learning so that our children leave Queensbridge as happy, confident, inspired and motivated lifelong learners.

We achieve our full potential through...

- challenge
- mutual respect and responsibility
- high expectations
- inspiration and motivation
- being independent thinkers

Queensbridge Primary School is a culturally rich and diverse community where all voices are heard. We are all valued. We encourage a healthy attitude towards life and learning.

Aims and Objectives

Science aims to increase children's understanding of the world around them. It stimulates natural curiosity and teaches methods to develop and explore it. Children learn to ask scientific questions, carry out practical investigations and use equipment scientifically.

Throughout their time at Queensbridge children develop their knowledge of life processes, materials, electricity, light, sound, natural forces and the solar system. They learn how to evaluate evidence and present clear and accurate conclusions relating to these areas.

Teaching and Learning

To develop children's scientific knowledge, skills and understanding we use a variety of teaching and learning styles. This may be through whole class teaching, practical investigations, research, role-play, discussion or problem solving activities. Usually it will be through a combination of two or more of these. Children will use ICT where appropriate, for example using monitoring equipment or electronic microscopes. Every effort is made to give lessons meaning by relating their objectives to the real world.

We ensure that all learning opportunities are accessible to children of all abilities by matching the challenge of tasks to the ability of each child. This is achieved in a variety of ways including:

- * Setting open ended tasks that can have a variety of responses.
- * Setting tasks of increasing challenge.
- * Grouping children by ability and setting appropriate tasks for them.
- * Providing a range of resources to support learning.
- * Providing peer support, or the support of a Teaching Assistant, to individuals, pairs

or small groups.

Organisation and Planning

Science education through the school is co-ordinated by the science co-ordinator. The science co-ordinator is responsible for managing the budget, updating and monitoring school resources, supporting colleagues in their teaching of Science and monitoring the teaching and planning of Science lessons.

Queensbridge use the national scheme of work for Science (QCA units) as the basis for planning this core subject. It is adapted to local circumstances and needs of the children to ensure it can be delivered with meaning.

Planning is divided into long, medium and short term.

* The long term plan maps the topics studied each term, planned by the senior management team with input from teachers of when optimum cross curricula links can be made.

* The medium term plans are written half termly by teachers and detail the aims and objectives of individual lessons and how these may be achieved. The science co-ordinator keeps and reviews these plans to ensure full coverage of the National Curriculum.

* The short term plans are the daily lesson plans written and delivered by teachers in their class. They detail specific learning objectives, expected outcomes and activities to achieve these. They are kept by the class teacher and are used during informal discussions with the science co-ordinator.

Science topics are planned so that they build on prior learning and ensure that children are presented with work that will always challenge them and enable them to progress their skills and knowledge. Science is taught for a minimum of two hours a week.

Planning in the Foundation Stage

Planning in Nursery and Reception follows the foundation stage "Stepping Stones" with the aim that children will have achieved the Early Learning Goals for "Knowledge and Understanding of the World" by the end of Reception.

Inclusion

We ensure that all children are included equally in scientific learning regardless of gender, race, class, physical ability, intellectual ability or linguistic ability. Positive scientific role models of both genders and a range of cultural backgrounds are promoted. Resources are monitored for cultural or gender bias. Tasks are adapted for children at different stages of language development (including English as an additional language.)

We ensure all special needs are reasonably catered for and that progress towards goals set on Individual Education Plans are supported by the class teaching.

Assessment

Teachers constantly monitor and make informal assessments of children's understanding during lessons. They assess work completed and use it as a basis for planning future lessons (known as formative assessment.) The teacher provides

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written and/or verbal feedback to children on their work. Children also have the opportunity to give feedback on how they feel they have done either verbally or, in the case of written work, as a comment in their book.

At the end of a unit of work the teacher makes a summative assessment of each child's progress through the use of an NSI test combined with their own professional judgement. Children's progress is recorded as a level.

Children's progress in APP/SC1 investigation skills is monitored and recorded on the APP tracking sheets through assessed practical sessions and other assessment opportunities available both within and outside Science lessons. These levels are transferred to a school tracking sheet at the end of every term. See the Science Assessment Policy for more details.

Children take the national test in Science (the SAT) at the end of Key Stage 2.

The results of tests and teacher's assessment are shared with parents through parent meetings and the annual school report. Assessments each year are passed on to the teacher for the next year to ensure continuity and progress for every child's learning.

Resources

Resources are stored centrally in a resource room, organised into topic boxes. Teachers are responsible for the collection and return of resources and notify the science co-ordinator if additional resources are required or if consumables need replacing. The contents of each box is recorded in a resource list available on the shared drive of the school's computer network and can be searched by staff.

Displays

As a core subject; Science topics, themes and vocabulary are represented in every class. These displays include questions to raise children's comprehension skills and inquisitiveness.

Monitoring and Review

The science co-ordinator works with the senior management team to ensure that strengths and weaknesses in the science curriculum are identified and supported appropriately. The co-ordinator also uses specially allocated management time to review children's work, planning and to observe science lessons across the school.