

Beaufort Primary

Science Policy 2016

Statement:

Beaufort Primary School understands the need for all pupils to develop their Scientific ability as an essential component of all subjects and as a subject in its own right. A good understanding of scientific knowledge and conceptual understanding helps to support pupils work across the curriculum.

Aims:

At Beaufort Primary we believe that Science is a body of knowledge built up through experimental testing of ideas. Science is also a practical way of finding reliable answers to questions we may ask about the world around us. Science in our school is about developing children's ideas and ways of working that enable them to make sense of the world in which they live through investigation, as well as using and applying process skills.

We believe that a broad and balanced science education is the entitlement of all children, regardless of ethnic origin, gender, class, aptitude or disability. Our aims in teaching science include the following:

- Preparing our children for life in an increasingly scientific and technological world today and in the future.
- Helping our children acquire a growing understanding of the nature, processes and methods of scientific ideas.
- Helping develop and extend our children's scientific concept of their world.
- Building on our children's natural curiosity and developing a scientific approach to problems.
- Encouraging open-mindedness, self-assessment, perseverance and developing the skills of investigation - including: observing, measuring, predicting, hypothesising, experimenting, communicating, interpreting, explaining and evaluating.
- Developing the use of scientific language, recording and techniques.
- Developing the use of computing in investigating and recording.
- Making links between science and other subjects.

Statutory Requirements:

Statutory requirements for the teaching and learning of Science are laid out in, The National Curriculum in England Framework Document for Teaching, September 2014 and the Statutory framework for the Early Years Foundation Stage, September 2014.

How Science is structured through the school:

Planning for science is a process in which all teachers are involved to ensure that the school gives full coverage of, 'The National Curriculum programmes of study for Science 2014' and, 'Understanding of the World' in the Early Years Foundation Stage.

Science teaching at Beaufort Primary School involves adapting and extending the curriculum to match all pupils' needs. Where possible, Science links will be made within class topics. Science is predominantly taught as discrete units. Due to the mixed year groups in our classes, Science units are taught on a two year rolling programme. This ensures progression between year groups and guarantees topics are covered.

Teachers use a scheme of work which forms the starting point for planning. Teachers then adapt those plans to suit their children's interests, current events and their own teaching .

Foundation Stage (reception pupils):

Pupils explore science topics through making predictions, using their senses and investigating materials and their properties. Science is taught through the strand of, 'Understanding the World'. Science teaching and learning is also linked to the other strands of The EYFS framework for learning, 2014.

Teachers and teaching assistants support pupils to develop a solid understanding of things occurring around them in their day-to-day lives. Children are encouraged to be creative and inquisitive as they participate in activities. Pupils are encouraged to use their natural inquisitiveness, while taking part in exploratory play in specific scientific areas as well as areas that link across the EYFS framework.

Key Stage One:

During Key Stage one, pupils observe, explore and ask questions about living things, materials and the world around them. They begin to work together to collect evidence to help them answer questions, find patterns, classify and group objects, research using a variety of sources.

Pupils use reference materials to find out more about scientific ideas. They share their ideas and communicate them using scientific language. Pupils use simple measurements and equipment to gather data, carry out simple tests, record simple data and talk about what they have found out and how they found it out. Science lessons in Key Stage one are either taught discretely or where possible connected to other curriculum areas. Teachers are encouraged to use the outdoor areas in their science learning.

Key Stage Two:

Children are encouraged to extend the scientific questions that they ask and answer about the world around them. Pupils carry out a range of scientific enquiries including: observations over time, pattern seeking, classifying, grouping and researching using other sources (including computing resources). Children in Key Stage Two learn to plan science investigations by only changing one variable to make it a fair test. Pupils in Key Stage two are encouraged to draw conclusions and use scientific vocabulary, first, to talk about and later, to write about what they have found out.

Assessment:

Children are given end of unit termly assessments (in line with the 2014 curriculum) that test pupils' knowledge and ability to apply prior learning. Pupils are graded as either BELOW/ EMERGING/ DEVELOPING SECURE/EXCEEDING at National standards. Teacher assessment within the classroom helps inform that judgement. Findings from those assessments inform future planning and CPD. Assessment results are placed on the school's tracking system which allows the Science coordinator/ SLT to identify key areas within Science to develop along with the capacity to monitor progress and whole school standards. Findings inform areas of development for the School Improvement Plan.

The Governing Body:

Regular reports are made to the governors on the progress of Science provision and to our Science Governor. This policy will be reviewed every three years or in the light of changes to legal requirements.

Cross-curricular Science Opportunities:

Teachers will seek to take advantage of opportunities to make cross-curricular links. They will plan for pupils to practise and apply the skills, knowledge and understanding acquired through Science lessons to other areas of the curriculum.

The Use of Computing:

We recognise the important role computing skills have to play in the development of scientific skills. We also recognise the importance of being computer Literate. Computing skills are used on a daily basis to enhance teaching and learning of science and to give all children the opportunity to use computing to research, collect, analyse and present scientific findings.

Inclusion:

We aim to provide for all children so that they achieve as highly as they can in Science according to their individual ability. We will identify which pupils or groups of pupils are under-achieving and take steps to improve their attainment. Gifted children will be identified and suitable learning challenges provided.

Equal Opportunities:

Beaufort Primary has universal ambitions for every child, whatever their background or circumstances. Children learn and thrive when they are healthy, safe and engaged. In order to engage all children: cultural diversity, home languages, gender and religious beliefs are all celebrated. Our curriculum includes a wide range of texts and other resources which represent the diversity and backgrounds of all our children (see equal opportunities policy).

Role of Subject Leader:

The Subject Leader should be responsible for improving the standards of teaching and learning in Science through:

- Monitoring and evaluating pupil progress;
- Provision of Science;
- The quality of the Learning Environment;
- Taking the lead in policy development;
- Auditing and supporting colleagues in their CPD;
- Purchasing and organising resources;
- Keeping up to dates with changes in the subject.

Parental Involvement:

We aim to involve parents directly in the life of the school, and thus in the development of children's skills, knowledge and understanding in Science. There are opportunities each term when parents can discuss their children's progress with their teacher. Curriculum information and updates are available on the school's website.

SATs results are published in accordance with Government legislation.

Conclusion:

This policy should be read in conjunction with the following school policies:

- Teaching and Learning Policy
- Marking policy
- Special Educational Needs Policy
- Computing Policy
- Equal Opportunities Policy
- Health and Safety Policy
- Continuing Professional Development Policy

This policy will be reviewed every three years or in the light of changes to legal requirements.

Headteacher:	Carla Dewberry	Date:	24-2-16
Science coordinator	Phil Harris	Date:	24-2-16
Chair of Governing Body:	Libby Partridge	Date:	24-2-16