



Science Policy

Policy Creation and Review	
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Contents Page

	Page
1. Statement	3
2. Aims and objectives	3
3. Statutory requirements	4
4. Teaching & learning	4
5. Monitoring & review	5
6. Governing body	6
7. Cross-curricular links	6
8. Assessment & target setting	6
9. Inclusion	7
10. Equal opportunities	7
11. SEN	7
12. Health and safety	7
13. Role of the subject leader	8

1. Statement

New City 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.

2. Aims and objectives

At New City Primary School 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.

3. 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.

4. Teaching & learning

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 the New City Primary School involves adapting and extending the curriculum to match all pupils' needs. Where possible, Science will be linked to class topics. Science will also be taught as discrete units and lessons where needed to ensure coverage. This ensures progression between year groups and guarantees topics are covered. Teachers plan to suit their children's interests, current events, their own teaching style, the use of any support staff and the resources available.

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 (year one and two): 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 and carry out fair testing. Pupils use reference materials to find out more about scientific ideas. They share their ideas and communicate them using scientific language, drawings, charts and tables. Science lessons in Key Stage one are either taught discretely or where possible connected to other curriculum areas. Pupils often use the outdoor areas in their science learning.

Key Stage Two (years three - six): 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 extend their scientific learning using the outdoor areas.

5. Monitoring and review

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

Monitoring of Pupil Tracker is carried out each term and termly reports are produced by the Coordinator; findings and actions are shared with the whole school. The Science subject leader gives the head teacher an annual summary report in which s/he evaluates the strengths and weaknesses in the subject and indicates areas for further improvement. This is then used to help construct the following years subject development plan.

6. 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.

7. Cross-curricular Science Opportunities

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

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 wherever possible 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.

8. Assessment and Target Setting

Teachers assess children's work in Science by making assessments as they observe them working during lessons. Regular opportunities are also provided for pupils' peer and self- assessment. They record the progress made by children against the learning objectives for their lessons. At the end of a unit of work, teachers put their assessment into Pupil Tracker. This information is used to plan the future work of each child. These records also enable the teacher to make an annual assessment of progress for each child, as part of the child's annual report to parents. The teacher passes this information on to the next teacher at the end of each year

Pupil's work will be assessed in line with the Assessment Policy.

9. 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 underachieving and take steps to improve their attainment. Gifted children will be identified and suitable learning challenges provided.

10. Equal Opportunities

New City Primary School 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.

11. SEN:

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 variation - so that we can take some additional or different action to enable the child to learn more effectively. This ensures that our teaching is matched to the child's needs. The class teacher will work in conjunction with the SENCO, Science Co-ordinator and the support teacher/assistant to ensure that the lesson is appropriate to the needs of the child on the code of practice. The support teacher/assistant should be fully briefed beforehand and the objective of the lesson clearly identified.

12. Health & safety:

Teachers need to assess the class and their Health and Safety needs. For all other Health and Safety concerns, please refer to the ASE publication called 'Be Safe'.

13. 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

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

