



Silverhill Primary School
Policy for Science

Curriculum

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Science is a distinctive form of creative human activity that involves a way of seeing, exploring understanding and explaining the natural and physical world.

Aims

At Silverhill our aim is for all children to have experience and access to a broad, relevant Science curriculum, which puts understanding of scientific concepts and their applications in a social and ethical context.

We aim to help children learn about the world around them by exploring it using all their senses and by questioning and testing ideas.

We also aim to encourage children to develop a caring and responsible attitude towards their environment, themselves and others and all living things.

These relate to Science in the National Curriculum, which has 4 main sections:

- Sc1: Scientific Enquiry
- Sc2: Life processes and living things
- Sc3: Materials and their properties
- Sc4: Physical processes

Learning and Teaching

Science at Silverhill is taught mainly through a thematic approach with creative, cross curricular links being made wherever possible. Where this is not possible, certain areas of science are taught as discrete units. The focus of the learning and teaching of Science at Silverhill is skills based. The Enquiry skills of Sc1; sorting, classifying, planning, predicting, questioning, inferring, concluding, evaluating and communicating are taught in the context of Sc2 - Sc4. In this way children are developing their investigative skills alongside their understanding of key scientific

ideas. Over the course of a term children will have the experience of carrying out at least one whole investigation.

In Foundation stage, Science forms an integral part of topic work as part of 'Knowledge and Understanding of the world', one of the 6 areas of learning. Emphasis is on child initiated learning through play, with some adult intervention, demonstration and use of the language of Science.

Planning

The planning of science remains the responsibility of each year group. A theme overview/ topic web for each year group shows how Science fits in to the theme each term. Detailed plans/scheme of work show how the specific learning intentions for science are being taught that term.

Ongoing assessment will help to inform future plans and ensure the Science curriculum is being tailored to meet the needs of the children. The Science subject leader will carry out a planning and work scrutiny annually.

Curriculum maps for both key stages show how the National Curriculum programmes of study are being covered. These ensure the continuity and progression across each key stage and across phase, for Science. (See appendix 1)

Organisation

In each year group, Science is taught by the class teacher in a creative and largely practical way. Science lessons are structured and organised in a way that best suits the needs of the children and the learning that is to take place. Therefore a range of approaches will be used by the class teacher. These may include: whole class or small group teaching as well as collaborative group work or a child working individually.

Sustainability and Global Citizenship

Sustainability and Global Citizenship form an integral and vital part of the Science curriculum. Key topics or themes naturally lend themselves to developing the children's knowledge, understanding, concern and care for the environment both locally and globally. Every encouragement is given to the children to apply the principles of the 8 doorways to Sustainability through Science, as well as other subject areas;

The 8 doorways are;

- Food and drink
- Energy and water
- Buildings and grounds
- Inclusion and participation

Travel and traffic
Purchase and waste
Local well-being
Global dimension

There are many resources within the school's extensive grounds that can be used to enhance the learning and teaching of these principles through a scientific focus. These include the; wildflower meadow, recycling scheme, willow dome, memorial garden, pond, allotments, sensory garden and forest schools project.

Children with Special Educational Needs and the More able children

Science lessons, tasks and materials are differentiated by the class teacher to meet the needs of individual children. Children identified as having Special Educational Needs may need greater differentiation of materials and tasks consistent with that child's I.L.P.

More able children will be challenged and motivated by greater differentiation of materials and tasks. The class teacher will also aim to identify those children who may be gifted in Science and provide them with appropriate learning opportunities. See Policy for Gifted and Talented.

Inclusion

All children will be given opportunities to participate on equal terms in all Science activities and due consideration will be given to the principles of Inclusion.

Assessment, Records and Reports

Progress in Science is monitored through ongoing teacher assessments supported by termly by summative tests from Year1 - Year6. Each test is in sections reflecting the topics identified in the National Curriculum. On-going assessment of children's learning and progress are also used within the classroom, to further inform the teacher. This allows children's progress in Science to be monitored from FS2 to the end of year 6.

The Annual Reports to parents, inform the parents of their child's progress and attainment (based on teacher assessment) in Science for the academic year.

Children's work in Science is marked in accordance with the school's Marking Policy.

Link with other subjects

Science contributes to many subjects within the primary curriculum and opportunities will be sought to draw scientific experience out of a wide range of areas across the curriculum. Our mainly thematic approach to Science at Silverhill gives children the opportunity to use and apply scientific skills and understanding in real contexts. Computing is used in a variety of ways to support and enhance the learning and teaching in Science. The interactive whiteboard is used extensively for this purpose, along with other audio visual aids and resources.

Health and Safety

Due regard is given to safety issues when planning Science activities. Children are made aware of the reasons for safety measures and their implications and are encouraged to consider safety for themselves, others and the environment.

For specific guidance about safety in Science the class teacher will refer to 'Be Safe' ASE publication (3rd edition) .

Resources

Science resources are stored centrally, in labelled drawers and boxes. These include a range of audio visual aids, teacher resource books etc... An updated resource list is given to each class teacher annually.

Liaison with Other Schools

Silverhill has close links with other primary schools in the area where good practice in learning and teaching of all curriculum areas is shared. Silverhill also liaises with the local Secondary schools this not only facilitates the transition from Year 6 to Year 7 but provides the opportunity to use specialist science equipment and teaching as appropriate.