

SANDWICH INFANT SCHOOL



SCIENCE POLICY

Aims

- ◆ To develop the children's enjoyment and interest in science and an appreciation of its contribution to all aspects of everyday life.
- ◆ To encourage **curiosity** and sense of awe of the natural world, but at the same time fostering a caring attitude towards the living and non-living environment.
- ◆ To use a planned range of investigations and practical activities to give children a greater understanding of the concepts and knowledge of science.
- ◆ To develop the ability and desire to co-operate with others.
- ◆ To introduce the children to the language and vocabulary of science.
- ◆ To develop the children's basic practical skills and their ability to make accurate and appropriate measurements.

Management

The school has appointed Mrs. Joanna Russell as Science Co-ordinator. It is her role, alongside the Head of School, to support class teachers and ensure pupils receive their entitlement to the Science curriculum in line with the National Curriculum and this policy. The subject co-ordinator is also responsible for the science resources in the school.

Staffing

Class teachers are responsible for the planning, delivery and assessment of science for pupils in their care, using the Progression of Knowledge and Skills document devised by the Science Coordinator. Inset training is available, in consultation with the co-ordinator and Head, to provide further support for staff.

Style of teaching and learning

Wherever possible science work will be related to the real world and everyday examples will be used. Teaching may be a whole class, group, or individual. We will ensure that all staff, including those in a supportive role, have a clear idea of the concepts and skills to be taught. The curriculum may be delivered by a variety of means and pupils will be involved in a variety of structured activities and in more open-ended investigative work:

- ◆ Activities to develop good observational skills.
- ◆ Practical activities using scientific equipment to promote good manipulative and measuring skills.
- ◆ Structured activities to develop understanding of a scientific concept.

- ◆ Open ended investigations.

Curriculum planning

Reception

Science in reception classes is planned as an integral part of the topic work covered during the year and the Science aspects of the children's work relate to the aims and objectives set out in the Understanding the World.

KS1

The school has decided to use the Kent Science Scheme of work (2014) as a framework to deliver the National Curriculum. From this document the Science Co-ordinator has devised a progressive document of knowledge and Skills. Teachers use the objectives published in the progression document to ensure progression of teaching and learning. Activities are adapted to suit the needs of the class. Parallel year group teachers are responsible for developing medium term plans together using the schools agreed planning format detailing how the objectives in the schemes of work will be delivered. Lessons must include key elements. See below;

- Who is the Professor?
- What's in the science Bag? (Discovery Bag in Reception)
- Previous learning (sticky knowledge)
- Key questions
- Key vocabulary

Cross-curricular links

Science pervades every aspect of our lives and we will relate it to all aspects of the curriculum. Where possible the objectives outlined in the Progression document will be delivered through the year group topics. It may be necessary to teach discrete units where a cross-curricular link would be too tenuous.

Assessment

Assessment opportunities will be identified within the Progression Document, against the key questions in bold, using informal small group/class discussion. These will inform the statement made on the child's end of year report. At the end of Year 2 a teacher assessment will be recorded as to whether the children are working towards standard, at the expected standard or working within greater depth. The class teacher will also make a judgement at the end of each long term as to whether a child is WTS/EXS/GD. The Science co-ordinator will analyse end of Key Stage Data, and will use this to inform the other teachers as to how the children in the school are progressing from year to year. The formal assessments will be passed onto the receiving teacher in September.

Standards to be achieved

By the end of year R most children will have achieved the Early Learning Goals for Understanding of the World. By the end of Key Stage 1, 85% children will achieve the expected level based on teacher assessment.

Extension Opportunities

Staff will determine those children with greater ability in science through their assessment procedures and will provide opportunities during lessons for these pupils to further develop their skills, knowledge and understanding.

SEN

The study of science will be planned to give pupils a suitable range of differentiated activities appropriate to their age and abilities. Tasks will be set which challenge all pupils, including the more able. For pupils with SEN the task will be adjusted or the pupils will be given extra support. The grouping of pupils for practical activities will take account of their strengths and weaknesses and ensure that all take an active part in the task and gain in confidence.

Equal Opportunities

All pupils regardless of their race, gender and ability will have equal opportunity to participate in science activities. Gender and cultural differences will be reflected positively in the teaching materials used. Staff should at all times be a positive role model showing their own confidence in science.

Resources

Each Teacher has their own copy of the Progression Document (available on Sharepoint) and resources and teacher's books are kept mainly in the Fun Club room. Videos are in the library as are non-fiction books. ICT disks are in the resources room. Other resources are in classrooms.

Health and Safety

A simple risk – benefit assessment will be carried out for all practical activities as part of teacher's day to day planning.

Parent and Community Links

Parents will be asked to support work in science, by helping children with homework when it is given and helping with off site visits. Visits will be made to the local and wider community. Parents and members of the community are invited to visit and share their expertise, e.g. Doctors, nurses, R.S.P.C.A representatives.

Reviewed

Jo Russell
September 2022

