St Joseph's Catholic Primary School, Bishops Stortford, CM23 2NL

Curriculum Committee
Non-Statutory
Reviewed: September 2020
Next review due: Spring 2022

Science Policy

1 Aims and objectives

1.1 At St Joseph's we aim for the children to:
- Develop scientific knowledge and conceptual understanding through the teaching of science in each year group.
- Learn to communicate their knowledge and understanding, using technical terminology accurately and precisely and applying their mathematical knowledge of collecting, presenting and analysing data.
- Develop the skills required for 'working scientifically' so that pupils learn to use and apply a variety of approaches to answer relevant scientific questions. Such skills include: observing over time; pattern seeking; identifying, classifying and grouping; comparative and fair testing (controlled investigations); and researching using secondary sources. In addition, pupils will learn how to seek answers to questions through collecting, analysing and presenting data. Pupils will begin to formulate, undertake and evaluate their own experiments.
- understand the uses and implications of science, today and for the future.

Aims and objectives:

- Develop the skills required for science enquiry within given scientific and (Rising Stars – Switched on Science) including those of: ICT, problem solving, investigation and how to present their conclusions in the most appropriate way.
- Learn to communicate scientific ideas, facts and data.
- Begin to develop their understanding of different areas within Science to further develop scientific enquiry.
- To further their knowledge within the broad areas of; Life Processes and Living things, Materials and their Properties and the Physical Processes.)

2. Science Curriculum planning and organisation

2.1 The National Curriculum science programmes of study are followed. Throughout the school all staff now use the Rising Stars – Switched on Science resources to plan, deliver and assess children.

2.2 Teachers plan science annually, termly and weekly.

3 Early Years and Foundation Stage (EYFS)

3.1 In EYFS, science is covered as part of the Early Years Outcomes/Development matters, and is a specific area of 'Understanding the World'. In this area of learning, the children are developing 'crucial knowledge, skills and understanding that helps them to make sense of the world'. This then forms the foundation for later work in science. The children's learning is primarily topic based, builds on previous knowledge and experiences and has a strong practical bias.

4 Cross curricular links

4.1 English

Science makes an important contribution to the teaching of English in our school as it actively promotes the skills of reading, writing, speaking and listening. Science reflects the importance of spoken language through the development of

scientific vocabulary and articulating scientific concepts clearly and precisely. Through the development of scientific knowledge, conceptual understanding and working scientifically, students: read a range of sources; ask, discuss and answer questions; write reports, descriptions and explanations; complete individual, paired, group and whole-class tasks and present their ideas and findings.

4.2 Mathematics
Science also contributes to the teaching of mathematics as it builds upon and asks children to apply their mathematical skills, including collecting, presenting and analysing data and making comparisons between data sets.

4.3 Computing
ICT is used to facilitate the teaching of science throughout the school. Teachers have access to a range of web based resources to support learning in the classroom. In addition, children use ICT to research and to record their questions and collect and present data.

5. Inclusion
5.1 Planning at all levels aims to deliver a broad and balanced curriculum to all children. Pupils are grouped in mixed ability and gender groups for all activities. Lessons are differentiated appropriately. Teaching assistants, when available, work as directed by the teacher. Gifted and Talented children are given opportunities to work on complex issues and attend enrichment days and clubs.

6. Assessment and Recording
6.1 Assessment in science is both formative and summative. Teachers observe, monitor and question children during science lessons as part of their daily practice and formative assessments. When children have completed a particular task, work is marked according to the marking policy and an appropriate comment is written. At the end of a unit, a summative assessment is carried out and used alongside teacher assessment to record a level of attainment. These assessments using Assessment documents from Rising Stars are recorded on the staff resources and children are graded at "working towards age relate expectations", "working at age related expectations" or "working at a greater depth".
6.2 Science subject leaders (within the science/computing/D&T team) monitor levels of attainment and keep a portfolio of samples of the children's work each year.

7 Resources
7.1 A large variety of resources are available to teach science. These are kept in a central store and are reviewed and updated regularly by the subject team. If resources are required to teach a particular unit, staff order these in advance of lessons.

8. Safe Practice
8.1 Safe practice as indicated in the Association of Science Education Publication, 'Be Safe!' is promoted at all times. Teachers also take into account the school's health and safety policy. Particular attention is given to avoiding the use of anything that aggravates individual pupils' allergies.

9. Monitoring and review

9.1 The science/computing/D&T team is responsible for monitoring the standard of the pupils' work and the quality of planning in science. The team is also responsible for supporting colleagues in the teaching of science, and keeping themselves informed about current developments in the subject. Subject team leaders provide the Governors with a biannual report which evaluates the strengths and weaknesses of the subject and indicates areas for further improvement. The team is allocated time for monitoring pupils' work and observing teaching across the school.

September 2020 (MB, VK, ME, PC)