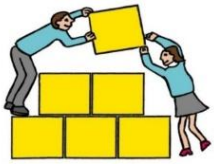
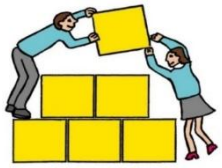


Sprowston Junior School
Our Curriculum



Subject: Science

Date policy was updated:	Monitored by:	Date of policy review:
September 2024	Neil Reeds	September 2025

This policy can be summarised using the three categories: intent, implementation and impact. These areas are used to monitor the effectiveness of our science curriculum across the school.

Intent:

- To provide a stimulating, inclusive and challenging Science curriculum across the school.
- To foster a love of Science.
- To develop inquisitive Scientists with a knowledge and understanding of their world.
- To develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics
- develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them
- be equipped with the scientific skills required to understand the uses and implications of science, today and for the future. We understand that it is important for lessons to have a skills-based focus, and that the knowledge can be taught through this.
- To make cross-curricular as well as contextual links with Science.

Implementation:

- A cycle of lessons for each subject, which carefully plans for progression and depth;
- Through our planning, we involve problem-solving opportunities that allow children to find out for themselves. Children are encouraged to ask their own questions and are given opportunities to use their scientific skills and research to discover the answers. This curiosity is celebrated within the classroom. Planning involves teachers creating engaging lessons, often involving high-quality resources to aid understanding of conceptual knowledge. Teachers use precise questioning in class to test conceptual knowledge and skills, and assess children regularly to identify those children with gaps in learning, so that all children keep up;
- Spaced retrieval questions through our 'Sticky Skills' which help create a deeper level of processing any previously learned content into children's long term memory;
- We build upon the learning and skill development of the previous years. As the children's knowledge and understanding increases, and they become more proficient in selecting, using scientific equipment, collating and interpreting results, they become increasingly confident in their growing ability to come to conclusions based on real evidence;
- Working Scientifically skills are embedded into lessons to ensure these skills are being developed throughout the children's school career and new vocabulary and challenging concepts are introduced through direct teaching and knowledge organisers. This is developed through the years, in keeping with the topics;

- Teachers demonstrate how to use scientific equipment, and the various Working Scientifically skills in order to embed scientific understanding. Teachers find opportunities to develop children's understanding of their surroundings by accessing outdoor learning whenever possible;
- Children are offered a range of extra-curricular activities, visits, trips and visitors to complement and broaden the curriculum. These are purposeful and link with the knowledge being taught in class;
- Regular events such as National Science Week, Science Club, Science Fair or specific projects allow all pupils to come off-timetable, provide broader provision and allow for the acquisition and application of knowledge and skills. These events often involve families and the wider community;

Impact:

- A wider variety of skills linked to both scientific knowledge and understanding, and scientific enquiry/investigative skills.
- A richer vocabulary which will enable to articulate their understanding of taught concepts.
- High aspirations, which will see them through to further study and work.

Statement:

In science, we will inspire our children by giving them the opportunities to pursue their natural curiosity; promoting the experience of exploring and investigating scientific phenomena, in a range of contexts, to ensure a continually evolving knowledge and understanding of the world around them.
We believe it is vital to promote and develop transferrable skills such as observation, communication and teamwork to evolve the whole child as a lifelong learner.
Our objective is to provide lessons which consolidate prior knowledge, encourage deeper understanding and that are rooted in scientific vocabulary.
Our children will be encouraged to ask questions, take risks, experiment, reflect, make and learn from mistakes in a safe environment. Whereby they will acquire and apply core skills which equip them for an ever-changing world.

Organisation:

At Sprowston Junior School, we teach Science lessons twice per week. The year groups all follow the National Curriculum units for their year. Each year group chooses the order of their units to best fit their curriculum. However, as we have mixed aged classes in years 3 and 4, there is a 2 year cycle of planning for LKS2 which is reflected in the Curriculum Map. Each teacher will choose medium term plans depending upon what best suits the unit that is being studied. Most units are taught using "Grammarsaurus" plans, which provide knowledge organisers, pre and post quizzes, ideas for a range of science investigations, handouts and assessment for learning activities.
To support our learning, SJS is a member of TSN (Teacher Science Network) which is based at the John Innes Science Research Park, Norwich. From here, the school requests 8 kits per year which is a valuable source of resources and ideas. In school, there is a Science cupboard, which is well equipped and labelled to help teachers with resources on a day-to-day basis.
We are currently part of The Ogden Trust Partnership which has helped us with valuable resources (e.g. new electricity kits) and training (e.g. for Science Lead, Science Ambassadors).