

Science Policy Statement

St. Laurence's C E Primary School

A high-quality science education provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics. Science has changed our lives and is vital to the world's future prosperity, and all pupils should be taught essential aspects of the knowledge, methods, processes and uses of science.

| Year | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 | All year |
|------|---|--|--|---------------------------------------|---|---|---------------------------|
| 1 | Our senses Autumn | Light – Seeing the light | Material World Winter | Weather report Spring | Plants Gardeners world | Amazing Animals Summer | Working scientifically |
| 2 | Animals including humans – me inside and out. | Animals including humans variation. | Use of everyday objects. | Sound | Green fingers Plants | Little creatures Mini beasts All living things and their habitats | Working scientifically |
| 3 | Animals including humans | | Forces and Magnets | Plants | Rocks | Light | Working scientifically |
| 4 | Electricity | | Sound | Animals Food chains | States of matter | Digestion | Working scientifically |
| 5 | Earth and space | Properties and changes of material | Animals including humans | Forces | Life cycles – living things and their habitats | | Working scientifically |
| 6 | Light | Electricity | Animals Circulation diet and exercise | Living things – micro organisms | Evolution and inheritance. | | Working scientifically |

Through building up their knowledge of scientific concepts and first hand practical experience pupils are encouraged to develop their excitement and curiosity about natural phenomena. Pupils develop an understanding of what is happening, how things will behave and are encouraged to understand how science can be used to explain what is occurring. During lessons pupils are given the opportunity to develop methods of scientific enquiry (for example: observing, predicting, planning, analysing and concluding). Pupils are encouraged to interpret and communicate their findings with the aid of correct scientific vocabulary and through the use of a wide range of data collection and presentation.

Aims

The national curriculum for science aims to ensure that all pupils:

- *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*
- *are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.*

In the Foundation Stage much of the science teaching forms part of 'Understanding of the World', communication, language and literacy and relates to the objectives in the Early Years Foundation Stage Profile.

Teaching and Learning style

We use a variety of teaching and learning styles in science lessons and often links are made with other subjects, especially through topic work. Our principle aim is to develop children's knowledge, skills and understanding. Sometimes we do this through whole-class teaching but wherever possible we engage the children in enquiry-based research activity. We encourage the children to ask, as well as answer, a wide variety of scientific questions. As part of this process the children plan and carry out practical scientific investigations, using appropriate equipment and resources. They have the opportunity to compile and use a variety of data, such as statistics, graphs, pictures and photographs. They use ICT in science lessons where it enhances their learning. The children are encouraged to evaluate evidence and present their conclusions clearly and accurately. The children also have the opportunity to take part in science-based field trips and workshops from visiting speakers.

National Curriculum Coverage:

To ensure that the National curriculum is covered the topics will usually be taught as follows, however individual teachers may alter these plans or add additional units. As pupils enter key stage 2 the gaps across each year group enable teachers to add additional projects or topics and also address any misconceptions or gaps in learning due to the changes in the curriculum.

Assessment and Recording

We assess children's work in science by making informal judgements as we observe them during lessons. Assessment is also made by questioning the children and by marking the work which is recorded in their books against specific learning outcomes. We assess both pupils knowledge of the topic and their scientific enquiry skills.

Inclusion and Differentiation

All children are encouraged and supported to develop their full potential in science. Some children may require extra support in the classroom and opportunities for consolidation and reinforcement. Activities are differentiated to meet the needs of all pupils. More able pupils who show a particular ability and flair for science are extended through the use of more challenging problems and investigations.

September 2015