



SCIENCE SUBJECT STATEMENT

Science is a body of knowledge built up through experimental testing of ideas. Science is also methodology, a practical way of finding reliable answers to questions we may ask about the world around us. Science in our school is about developing children's ideas and ways of working that enable them to make sense of the world in which they live through investigation, as well as using and applying process skills.

Teaching and Learning in science

Our role is to teach scientific enquiry through the programmes of study for Key Stage 1 and Key Stage 2 in the National Curriculum and the Early Years Foundation Stage Framework.

EYFS

The Reception class is part Foundation Stage of the National Curriculum. The science element forms part of Knowledge and Understanding of the World which is one of the 6 areas of learning. Children work towards the Early Years Goals which under pin the curriculum planning for children aged 3 – 5. Science is delivered in a very practical, exploratory way. Children are able to develop their natural sense of curiosity for the world around them. They are encouraged to talk about their ideas and ask questions. They are able to explore objects and materials, looking at similarities and differences and making discoveries for themselves. This takes place through a balance of child initiated and adult lead activities which take place both in the classroom and outdoors.

Key Stage 1 and Key Stage 2

The National Curriculum sets out the purpose of study and aims in science

Purpose of study

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. Through building up a body of key foundational knowledge and concepts, pupils should be encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena. They should be encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes.

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 For older children the aims of science are outlined in subject specific guidance*

We view the teaching and learning of attitudes and skills as a key part of the science curriculum.

Attitudes

- Encouraging the development of positive attitudes to science.
- Building on our children's natural curiosity and developing a scientific approach to problems.
- Encouraging open-mindedness, self-assessment, perseverance and responsibility.
- Building our children's self-confidence to enable them to work independently.
- Developing our children's social skills to work cooperatively with others.
- Providing our children with an enjoyable experience of science, so that they will develop a deep and lasting interest and may be motivated to study science further.

Skills

- Giving our children an understanding of scientific processes.
- Helping our children to acquire practical scientific skills.
- Developing the skills of investigation - including observing, measuring, predicting, hypothesising, experimenting, communicating, interpreting, explaining and evaluating.
- Developing the use of scientific language, recording and techniques.
- Developing the use of ICT in investigating and recording.
- Enabling our children to become effective communicators of scientific ideas, facts and data.

Equal opportunities in science

Science is taught within the guidelines of the school's commitment to equality.

- We ensure that all our children have the opportunity to gain science knowledge and understanding regardless of gender, race, class, physical or intellectual ability.
- Our expectations do not limit pupil achievement and assessment does not involve cultural, social, linguistic or gender bias.
- We aim to teach science in a broad global and historical context, using the widest possible perspective and including the contributions of people of many different backgrounds.
- We draw examples from other cultures, recognising that simple technology may be superior to complex solutions.
- We value science as a vehicle for the development of language skills, and we encourage our children to talk constructively about their science experiences.
- In our teaching, science is closely linked with literacy and mathematics.
- We recognise the particular importance of first-hand experience for motivating children with learning difficulties.
- We recognise that science may strongly engage our gifted and talented children, and we aim to challenge and extend them.
- We exploit science's special contribution to children's developing creativity; we develop this by asking and encouraging challenging questions and encouraging original thinking.

Safety

Teachers refer to subject specific safety guidance *Be Safe* and <http://www.cleapss.org.uk/>