



Science

Curriculum Information

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.

Pupils will be given opportunities 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.
- Understand the uses and implications of science, today and for the future.
- 'Work scientifically' thus understanding the nature, processes and methods of science. It should not be taught as a separate strand and underpins every lesson taught. These types of scientific enquiry should include: observing over time; pattern seeking; identifying, classifying and grouping; comparative and fair testing (controlled investigations); and researching using secondary sources. Pupils should seek answers to questions through collecting, analysing and presenting data.

Science at Cotsford Primary

Science lessons are built upon working scientifically strands using our 'Cornerstones Curriculum' as a starting point. Each Cornerstones unit provides a fun, engaging topic-based approach to ensure children learn the scientific knowledge and skills they need whilst seeing the purpose of science in our lives. As part of the curriculum, we also study the life of scientists, old and new, finding out about their inventions and how they have changed lives. An important link to this is then looking at careers in science and the skills that are needed to equip our children with the knowledge that they too could become a scientist one day or certainly be employed in a role that involves some sort of scientific skills or phenomena.

Assessment of Science

At Cotsford Primary it is our intention that all children will at least reach their age related expectations as described in the National Curriculum. However, through a curriculum that is challenging and relevant to the children we expect children to achieve greater than age related expectations.

The programmes of study describe a sequence of knowledge and concepts. While it is important that pupils make progress, it is also vitally important that they develop secure understanding of each key block of knowledge and concepts in order to progress to the next stage.

Children who are not meeting age related expectations will be supported by staff through differentiated tasks and targeted small group work. The direct use of key questions and targeted support will be offered to ensure that any gaps between groups of children are closed.

Assessment of the children's Science skills will be assessed by the class teacher. There will be a range of evidence to support teacher judgement including sketch books, photographs and assessed pieces of work.

Monitoring of Science

The quality of the learning across the school is monitored by the Science Subject Lead Teacher.

Monitoring includes the Subject Lead Teacher observing learning within lessons, planning scrutiny, work scrutiny and discussions with children. Analysis of data is also undertaken to ensure that standards are high and that improvements are made where necessary.

Training is offered to all Subject Lead Teachers to ensure that their knowledge and skills are up to date and accurate.

The Subject Lead Teacher meets with the Special Interest Governor for Science to share school improvement plan initiatives with them and ensure that governors are aware of standards across the school.