



Curriculum summary

Subject: Science

Intent:

Why we teach science

The importance of science is highlighted in the following statement and the aims for learning of science for our pupils.

“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.” (The 2014 Primary National Curriculum in England, Science, page 144)

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.*

(The 2014 Primary National Curriculum in England, Science, page 144)

Implementation:

How we teach science

All children from years 1 to 4 will be taught a dedicated science lesson on a weekly basis. (KS1 pupils have 1 hour lessons. KS2 pupils have 2 hour lessons)

Children in Reception will cover the science objectives in the EYFS curriculum through a range of planned and child led learning opportunities. Year 1-4 follow the National Curriculum for science. Science is taught through topics such as Habitats, Mini-Beasts, Light and Shadow, Materials, Seasons, Sound, Healthy Living.

KS1 pupils have 1 hour per week. KS2 pupils have 2 one-hour lessons per week.

How we plan for learning

Planning is completed as a shared process between the teachers in each group. It is each teacher’s responsibility to ensure that all objectives and working scientifically skills are being taught both thoroughly and regularly as part of their good practice and quality first teaching and learning over time. To help ensure coverage, teachers use the DILS planning overview template. Each planning unit must include, where appropriate and possible, the completion of a full investigation and have a link to a scientist or a scientific job. Teachers also produce a weekly overview that captures the schedule for lessons and a brief overview of the coverage for that week.



How we assess learning

Reception children are continually assessed using the Foundation Stage Profile. Years 1 to 4 are teacher assessed. At the start of each unit, a front cover is stuck into the children's book which shows the objectives and working scientifically skills in a child friendly language. At the end of the unit, children self- assess their achievement as well as the teacher – this is recorded on the front cover sheet. The teacher also records their judgements on our online tracker system.

Impact:

Our expectations for all

All children are engaged and able to access the learning. They will have built up a body of key foundational science knowledge and concepts and have a key understanding of how science is vital to their everyday lives and the world's prosperity.

Our expectations for Year 4

Year 4 will leave our school having experienced high-quality science education, equipping them with the knowledge and skills to experiment, investigate and develop scientific enquiry skills. They should be able to think critically, question and develop an understanding how science has developed in the past and will continue in the future and their contribution within this.

How we measure impact

We will measure the impact of teaching and learning by tracking the progress and development of skills, shown in the children's science books.

How we monitor science

The subject leader completes book scrutiny (science books), conducts lesson observations, learning walks, planning scrutiny, staff CPD and collects pupil voice termly to ensure high quality progressive teaching and learning is consistent across the school.

How we report

The teacher reports engagement and progress face to face during parent teacher meetings and in an end of year report. The subject leader reports to governors and staff to ensure consistency across the school.