

Upton Westlea Primary School

Science Policy



Approved by staff: November 2020

Signed: K Carruthers

Approved by Governors: November 2020

Signed: L Dalton

Review Date: November 2022

Intent

At Upton Westlea, we intend for science to be an opportunity for pupils to build on their knowledge and understanding of the world around and develop their natural curiosity and skills of enquiry. Throughout the school children will be developing the scientific enquiry skills of observing; pattern seeking; comparative and fair testing; identifying and classifying; and research. There is a focus on the skills of investigation and children use these skills to add to their knowledge of how the world works. This will lead to children learning to work as scientists, planning and undertaking scientific investigations. It is our aim to promote positive attitudes to the learning of science and its function in the wider world, today and for the future.

Implementation

The national curriculum is set out year-by-year for key stages 1 and 2. Every year group has its own programme of study to follow with regards to knowledge based content, covering the three areas of science, biology, chemistry and physics as you progress through the key stages.

At KS1 and KS2 Science is taught both as a discrete subject and as one linked with other areas of the curriculum through a theme. The aim of linking science to a theme is to put it into context and make it more meaningful by doing so. 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.

Working scientifically is the name given to the skills used in scientific enquiry. This is clearly detailed and well emphasised for KS1 & KS2. The curriculum sets these skills out in a progressive way, to be taught throughout the key stages, growing more complex through the year groups.

Pupils are given the opportunity to use systematic enquiry communicating their findings in a variety of ways. Emphasis is placed on health and safety in science where children will be made aware of relevant points regarding health and safety when undertaking work or practical activities.

Appropriate practical equipment is available and should be used whenever possible, and resources are held centrally for all classes to use as appropriate. Schemes of work and website subscriptions are also available to help teachers with planning and delivering lessons to engage and inspire. Wherever applicable, children will be given opportunity use IT to support their work in science.

Activities are planned in such a way as to encourage full and active participation by all children irrespective of ability or barriers to learning, with our themes using a variety of starting points which appeal equally to all pupils.

Early Years

The early stages in the development of investigative skills are introduced in the Foundation Stage. Science is covered here as part of Knowledge and Understanding of the World.

Impact

When leaving Westlea our pupils should be equipped with scientific skills to enable them to gain an understanding of scientific processes and the skills of investigation. They should have positive attitudes towards science, built upon children's natural curiosity to problem solve. The children should be open-minded, and able to persevere. As they progress through the schools, skills should be built upon and misconceptions addressed as soon as possible to avoid any further impact on understanding.

COVID 19 Response

After lockdown and the children completing a long period at home accessing home learning, it is important that as a school we support the children in their learning of Science. Some topics were taught remotely, but as the level of access by children was varied, the subject leader has circulated to staff a timetable of when these topics could be built into the school curriculum for 2020-21 to address lost learning.

Year Group	Potential Topics for 2020-21 (carried over topics in red)
	Autumn
	Spring
	Summer
2	Living things and their habitats
	Everyday materials Y1
	Use of everyday materials
	Plants Y1; Plants
	Animals inc. humans
3	Animals in humans Y2
	Animals inc humans Y3
	Rocks and fossils
	Forces and magnets
	Plants Y2; Plants
	Light
4	Light Y3 / Sound / Electricity
	Animals inc humans
	States of matter
	Living things and habitats
	Plants Y3
5	Forces
	States of matter; Changing materials
	Animals inc. humans
	Earth & Space
	Properties of materials
	Living things & habitats Y4; Living things & habitats
6	Light
	Living things & habitats Y5; Living things & habitats
	Electricity
	Evolution & Inheritance
	Animals inc. humans
	Properties of materials Y5

Additional care will also be needed when using resources for Science. Lesson plans should include in their risk assessment a reference to good COVID practice, include reference to wiping / quarantining resources, extra hand washing and other considerations which would be appropriate.

Assessment

Each topic will start with understanding the current knowledge and interests of the children. This can inform planning and highlight any misconceptions which need addressing. This will be monitored throughout each topic, with teachers assessing pupils' progress in scientific knowledge, understanding and skills using appropriate assessment for learning strategies, observations during lessons, marking work and discussion with pupils. Planning and teaching will be adjusted as children progress throughout the topic. Some end of topic summative assessment may be used.

At the end of a unit of work the teacher makes a summary judgement about the work of each pupil in relation to the National Curriculum, assessing the children at 'below expectations', 'within expectations' and 'exceeding expectations'. The teacher records the attainment level on the science tracker. These sheets are handed to the co-ordinator on a termly basis.

Monitoring and review

The Science subject leader and The Head Teacher are responsible for monitoring the standard of the children's work and the quality of teaching in Science. They are also responsible for supporting colleagues in the teaching of Science, for being informed about current developments in the subject, and for providing a strategic lead and direction for the subject in the school. The Science subject leader gives the head teacher an annual action plan in which the strengths and weaknesses are evaluated and indicates areas for further improvement. Regular pupil voices are carried out to find out pupil's views on Science.

Inclusion

Upton Westlea Primary School is an inclusive school. We aim to make all pupils feel included in all our activities. We try to make all our teaching fully inclusive. We recognise the entitlement of all pupils to a balanced, broadly-based curriculum. We have systems in place for early identification of barriers to their learning and participation so that they can engage in school activities with all other pupils. We acknowledge the need for high expectations and suitable targets for all children.

Equality Statement

At Upton Westlea Primary School, we actively seek to encourage equity and equality through our teaching. As such, we seek to advance the equality of opportunity between people who share any of the following characteristic:

- gender;
- ethnicity;
- disability;
- religion or belief;
- sexual orientation;
- gender reassignment;
- pregnancy or maternity.

The use of stereotypes under any of the above headings will always be challenged.