



Onslow Infant School

Science Policy

This school is committed to safeguarding and promoting the welfare of children and young people and expects all staff and volunteers to share this commitment

This policy statement should be read alongside our Learning and Teaching Policy, Marking Policy, Assessment Policy, Records Management Policy, Inclusion policy and Reporting Children's Achievement Policy

Policy Review

This Policy was adopted Autumn 2020
The Policy will be reviewed in Autumn 2023

Policy Statement

At Onslow Infant School, we have a statutory obligation to teach science; it is one of the core subjects of the National Curriculum, together with English, mathematics and computing.

The science curriculum is planned so as to develop the children's creative, practical and intellectual skills, along with knowledge and understanding, in order that they can appreciate the world we live in and care for it.

The new National Curriculum for 2014 sets out why we teach science in schools:

'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 for science

The aims for science learning and teaching, which help deliver the wider school aims are:

- For pupils to develop a sense of excitement, enthusiasm and curiosity about the world they live in.
- To acquire basic skills and techniques for scientific enquiry
- To recognise and follow health and safety practices
- To gain an awareness of how people have used science to shape and explain the world we live in and events in our daily lives, as well as in other cultures and historical times
- To develop the skills of decision making, co-operation and communication
- To allow creative and critical ideas to be developed
- To provide appropriate and stimulating scientific experiences which encourage pupils to raise questions, explain, predict and suggest answers to questions.
- To develop a positive attitude to scientific enquiry and an awareness of the influence of science in everyday life.
- To deliver activities that meet the requirements of the national curriculum in a way that is appropriate to the needs and interests of all pupils and which challenge them to fulfil their potential
- To develop a reflective approach to scientific enquiry so these skills can be used in other areas of learning.
- For pupils to develop a caring attitude to the environment and living things.

Learning

Children will learn through:

- **Exploratory play**, to gain experience of a situation and to develop their own ideas.
- **Experimentation**, to try out ideas and find out what happens.
- **Investigation**, to test ideas or hypotheses in an increasingly systematic way.
- **Focused observation**, to develop the ability to notice detail and changes that take place over time.
- **Focused practical tasks**, to promote understanding of a concept or skill.
- **Sorting and classifying**, to group things by observable characteristics.
- **Discussion and debate**, of ideas and conclusions to consolidate understanding and develop the ability to explain clearly.
- **Presenting** the results of their work in appropriate and varied ways.
- **Working collaboratively and independently.**
- **Using secondary sources** to widen experiences, enhance understanding and provide evidence. This may be through the use of visiting scientists providing examples from wider contexts than those possible in the classroom and immediate environment or providing examples and illustrations requiring the use of specialised technology e.g. videos, IT programs and the Internet.
- By the end of Year 2, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.

Teaching

- Every objective on the statutory curriculum is to be met and where ever possible the non-statutory elements of the curriculum are to be taught.
- Science will be taught within the wider school curriculum. Teachers will use different contexts to maximize pupils' engagement and motivation to study science.
- In KS1 teachers follow the National Curriculum: Science – Key Stage 1 programmes of study.
- In Reception, 'science' learning and teaching will have a strong emphasis on developing basic enquiry skills and high quality observations as set out in the EYFS particularly Understanding the World and Characteristics of Effective Learning.
- The time allocation for sessions is flexible to suit the objective and activity.
- Science enquiry will be developed through planned instruction of skills appropriate to the age and ability of pupils.
- Key vocabulary will be displayed pertinent to each topic and pupils will be encouraged to use the technical vocabulary in all levels of communication.
- There will be frequent opportunities for pupils to make choices and take decisions both collaboratively and independently.
- Misconceptions will be identified and addressed so that pupils develop a secure understanding of each concept. This will ensure genuine progression through the curriculum.

Assessment Recording and Reporting

- Science will be assessed in line with the school Assessment Policy.
- Summative records will be kept of individual achievement. These will be updated at the end of term and passed to the Subject Leader.
- Information gained from assessment will be used to plan activities and determine if certain areas

of learning need to be revisited to make sure that children are secure in their learning.

- In EYFS and Year 1, evidence will be recorded through Tapestry, an online learning journal

Inclusion

This will be addressed through the school's Inclusion Policy. Teachers must take account of their duties under the Equal Opportunities legislation.

Special Educational Needs

Children will be given the necessary support to access the curriculum and allow them to carry out tasks at their own level. Notice will be taken of targets within a pupil's Send Support Plan (SSP).

EAL

Teachers should plan opportunities for children to develop their English and should aim to provide the support pupils need to meet the aims of the National Curriculum. This may be addressed through pre-teaching scientific vocabulary and displaying the vocabulary with images.

Most Able

Provision will be made when necessary for pupils to extend their experiences beyond that of the majority of the class through:

- High level questioning.
- Reducing the level of support provided and thereby increasing the need for independent thinking.
- Applying knowledge to an unfamiliar context.
- Setting more challenging criteria for presenting information.

Presentation and marking

- Work should be presented to the same standard as the English books.
- There should be a high expectation of spelling particularly of scientific vocabulary and common exception words.
- Pupils should be encouraged to make their own choice of appropriate presentation style.
- Books will be marked in line with the school's Marking Policy.
- Some work will be recorded in 'Floor books' in which photographs and 'science talk' from the session will be collated.

Safety

- Teachers should take account of health and safety factors when planning lessons.
- Further free Health and Safety advice can be sought from CLEAPSS
- Pupils will be made aware of safety issues that arise in activities and will be taught to use the appropriate equipment and carry out tasks in a safe and responsible manner.
- Careful assessment will be made to manage any risks involved in activities, including those of visitors. A risk assessment may be written to evaluate the risk. These should be signed by the Head Teacher and the Risk Assessor.

Resources

- Science resources are stored in the library cupboards and in classrooms.
- Staff should check availability of resources prior to the start of a topic and any resource shortages should be notified to the subject leader.
- The school grounds, which include a woodland area, grass area, raised beds and flower boarders are to be used throughout the year to aid the delivery of the National curriculum.

The Role of the Outdoor Curriculum

- As many science activities as possible will be planned to take place outside.
- Focus on identification of plants and trees on the school site.
- Focus on the growing of flowers and vegetables by the children.
- Working with the 'Woodland School' to further enhance the science learning

Science Visitors/Visits

- Members of the school community are encouraged to visit the school to expand the children's concept of science and its wider possibilities.
- Engagement with outside science bodies to give talks and develop projects with the children.