St John with St Augustine C of E Primary School

Science Policy 2022

At St John with St Augustine Church of England Primary School we encourage and enjoy achieving together in a stimulating and safe environment. We celebrate each other's individuality and share God's love for the world.

Our school's vision:

"With God's help, together, we aspire, achieve and believe."

Intent for Science

We have designed our science curriculum so that it is relevant to our children, where they live and to give them experiences which address their needs.

Our children have told us that they enjoy science when it is hands on, practical and they are actively involved in their own investigations. We aim for our children to be inquisitive- thinking deeply about, and debating, science topics. The intention of our school is to develop our pupils' spoken language and their enquiry skills giving them the confidence to plan out, adapt and evaluate investigations. We will equip our children with the scientific vocabulary to confidently communicate their learning. Our aims are to fulfil the requirements of the National Curriculum through providing a broad The sequencing of key blocks ensures the progressive development of knowledge, skills and vocabulary building upon their learning each year as they journey through our school providing a balanced and inclusive science curriculum. Opportunities and experiences inspire our children and positively impact on our science teaching. Our vision is for the children to develop a lifelong love of science which will positively impact their futures.

Science Vision

At St John with St Augustine Primary School we ensure that children have the opportunity to work scientifically and to work and think 'like a scientist. We asked our children about their science learning, and they responded with:
At St John with St Augustine C of E Primary School Science is excellent when:

- We can be hands on and work practically.
- We plan our investigations working as ' Teamwork Tigers'.
- We use and understand scientific vocabulary in lessons.
- We ask questions " What if ……?"
- We are engaged with our learning and are encouraged to be 'curious' scientists.

Science Implementation

At St John with St Augustine C of E Primary School we follow the National Curriculum. 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.

National Curriculum Coverage

The whole school Curriculum for science shows the coverage of skills, taken from the EYFS (Understanding of the World), and the national curriculum programme of study 2014. Coverage of the programmes of study. Through the implementation of our science curriculum, science will be taught as a skills-based subject, with teachers aware of the skills that they need to cover and given freedom to teach and develop these skills as they wish, placing a large emphasis on allowing practical 'hands on' experiences wherever possible developing independence within the working scientifically area of the curriculum. Pupils are encouraged to 'think scientifically' within lessons through the implementation of the 'vision' within science lessons.

To achieve this, we will:

- plan lessons that enable pupils to develop scientific concepts through a broad range of experiences, made relevant by building upon pupils' own experiences and within contexts suitable to their age, including significant emphasis on scientific enquiry.
- ensure pupils are taught in ways appropriate to both their abilities and within contexts suitable for their age and level of understanding.
- encourage 'curiosity' in children about their environment through a practical approach as well as making use of the resources in our local environment.
- facilitate a child's desire, knowledge and ability to find out about the world around them.
- organise and encourage practical activities and investigations so that children are able to participate in science in a practical context and gain first-hand experience of scientific phenomena.
- develop our children's ability to communicate their work and ideas to others in a variety of ways using scientific vocabulary correctly.
- encourage open-mindedness so children interpret their findings critically and do not always expect a 'right answer'.
- promote an appreciation of the influence that science has had and is having on people and their lives, as well as the effects that science has had, and is having, upon their environment over time, and in differing social and cultural contexts.
- ensure teacher and child assessment are used in a way that supports and encourages children to extend and challenge their ideas and findings.

- ensure that thought and consideration are given to the pupils prior learning and build upon this within our teaching.
- ensure science is not taught in isolation, but will naturally draw from, and contribute towards other areas of the curriculum. To ensure high quality English and maths skills are expected within science.
- Wherever possible, to allow children to make use of ICT based resources to enhance the learning experience.

Statutory Requirements

Statutory requirements for the teaching and learning of Science are set out in the National Curriculum document for 2014 and the Development Matters Statutory Framework for the Early Years Foundation Stage (2012).

During the Foundation stage the teacher will ensure coverage of the EYFS programme of study and time allocation will vary depending upon the 'topics' covered. The children's learning will be child focussed and led with the children being encouraged to 'lead' their scientific learning journey.

Science is timetabled and taught each week. Visits and visitors are encouraged and are supported through Culture Capital funding.

Teaching and Learning Style

The science curriculum is delivered:

- as a discrete curriculum area
- via a subject focused topic (through our science curriculum) making links to other subject areas when appropriate.

The organisational approach is flexible and achieves a balance over the year to include class, group, and individual methods of teaching. Children are encouraged to be investigative scientists and as they progress from Key stage 1 to Key stage 2 ask questions and to change and explore variables in investigations.

Science is taught by individual class teachers. Teaching methods include a mixture of: experiential learning, discovery methods, problem solving and open-ended investigation. The use of ICT based resources, including I Pads, is also encouraged when appropriate to enhance the children's learning.

Planning, Continuity and Progression

Science is taught weekly in EYFS, KS1 and KS2. In KS1 science is taught for 1 and a half hours per week. In KS2 science is taught for 2 hours per week. Regular monitoring of planning and books takes place to ensure that there is good coverage throughout school. Working collaboratively to monitor standards in science is encouraged within school. Planning is monitored on a regular basis as part of a subject leader monitoring schedule to ensure continuity and progression. Pupil voice is an essential part of the monitoring process within school. Science standards are monitored regularly within school.

Race Equality and Equal Opportunities Statement

At St John with St Augustine C of E Primary School are committed to the principle that all children are made in God's image and should be given equality of opportunity to fulfil their potential whatever their gender, disability, cultural, ethnic, racial or religious background.

Liaison with other Schools and Organisations

The science leader attends a cluster meeting on a termly basis at All Saints' Primary school. Any new science information is disseminated to staff during staff meetings.

Health and Safety

Refer to school policy.
Be Safe guidelines clearly visible on the notice board in the staff room.
CLEAPSS "Model Health & Safety Policy for Science in Primary Schools"

Assessment

In science assessments take place every half term against the National Curriculum objectives. Assessments take place at the end of a topic to establish whether pupils are working at age related expectation within that subject. By the end of the academic year class teachers will make final judgements.

Reporting

Annual written reports are given to parents in the summer term in addition to two parents' evenings. In the summer term, parents are invited to attend 'structured conversations' which are in depth opportunities to discuss their child's progress in science and all other curriculum areas.
Assessment data is reported to the Governing body on a termly basis through the report to Governors. Assessment data is shared with the Science Governor on a termly basis.

Professional Development

Through staff meetings, as science is a core subject, updating teachers' knowledge has taken place and will continue to take place on a regular basis ensuring all staff are up to date with developments in science. Working collaboratively to develop a Curriculum which is specific to meeting the needs of the children within our care. Continuing to monitor and develop the Science Curriculum. The Science Subject Leader attends Science Cluster meetings and disseminates information to staff members.

Resources - Organisation

The school is well equipped for science teaching, and equipment is well organised and labelled in designated areas. In accordance with funding through school resources are bought on an annual basis.

Funding

Funds are allocated each year, according to need, from the delegated school budget. The science leader submits a subject strategic plan (bid) and outlines within

this plan the financial requirements of the subject. Discussion with all teaching staff highlights areas where funding is required and additionally provides a balanced view of areas that could be improved, as well as ways in which the learning experiences we provide can be enhanced through the purchasing of relevant equipment or staff training.

The Science Subject Leader will:

- formulate and review a policy and scheme of work for science
- ensure that science is planned and taught effectively within school on a weekly basis
- keep informed of current issues and developments through staff meetings
- advise and encourage staff with planning and keeping them abreast of new developments through staff meetings.
- monitor and maintain science resources.
- liaise with the schools' science governor
- advise the head teacher and SLT on developments needed to improve the attainments of pupils in science

Subject Leader: Ian Hargreaves

Headteacher: Mr Mark Proctor

Science policy written June 2022 to be reviewed in June 2024