



Pilgrims School

Science Policy

May 2022

Next review date: May 2023



Please note: 'School' refers to Early Years Foundation Stage (Little Pilgrims and Pre School) and Pilgrims Main School.

RATIONALE

This policy reflects the school vision and values

At Pilgrims we inspire each child to love learning

We recognise the importance of making learning fun, interesting, meaningful and memorable. Therefore, we teach through a themed contextual approach enabling each child to connect ideas, build on prior knowledge and deepen understanding.

Science at Pilgrims aims to ensure that the children are provided with quality learning experiences in a variety of indoor and outdoor settings that lead to high levels of pupil achievement. It encourages children's enthusiasm, fosters their curiosity and develops their ability and skills to understand and appreciate the world in which they live.

In keeping with the School's values, staff and governors are committed to:

Kindness

- Providing a safe, stimulating learning environment
- Encouraging a sense of responsibility and positive attitude to caring for the world in which we live

Curiosity

- Making learning an enjoyable and challenging experience
- Fostering imagination, creativity, problem solving and a willingness to take risks
- Promoting assessment for learning building on what the children already know and encouraging a greater responsibility and ability to think and learn for themselves
- Developing lively and enquiring minds and build on natural curiosity
- Encouraging scientific skills, knowledge and understanding
- Providing opportunities for pupils to work independently to make choices and to work with innovation and to plan, hypothesise, predict, carry out and report on experiments
- Developing children's ability to examine and analyse results in the light of their hypotheses and to draw sensible conclusions
- Developing children's capacity to learn about ways of thinking, finding information and communicating scientific concepts

Respect

- Ensuring that every child succeeds by providing an inclusive education with a culture of high expectations
- Promoting respect for ideas and investigate the points of view of other pupils.

- Encouraging curiosity, perseverance, open-mindedness, critical reflection and cooperation.

Learning

Throughout the school, children engage in activities which encourage them to ask questions, to learn through practical experiences and to offer their own solutions to problems, enabling them to become independent and effective learners. Children are encouraged to plan, predict, carry out, record and present their findings appropriately. Opportunities are given to discuss their findings at all levels of investigation to enable them to gain confidence to develop their own ideas.

Lessons and activities should

- inspire interest, imagination and enjoyment
- build on previous learning or prior knowledge
- have a context or link to a bigger picture
- enhance or develop skills and understanding
- enable all pupils to access to the learning
- use additional adults effectively to support the learning
- foster the application of physical and creative effort and interest

Teaching

Teaching is delivered through a Creative Curriculum designed to enthuse and captivate the imagination of the children. Topics run on a four-year cycle and are devised using guidance and learning intentions drawn from the Early Years Foundation Stage and 'National Curriculum' documents. Lessons have clear learning objectives which are shared and reviewed with children at the start of lessons and success criteria jointly devised. Children are given the opportunity to practice science skills which are challenging, motivating and extend their learning.

Activities are planned which inspire the children to experiment and investigate the world around them. These activities provide opportunities to develop skills in enquiry; observation; planning investigative work, thinking creatively, selecting resources, carrying out activities safely, interpreting results and communication findings.

Assessment, Recording and Reporting

Assessment of each child's work is an ongoing process to ensure that each child is working at an appropriate level. A variety of strategies are used to monitor progress including observation, discussion, question and answering, concept mapping and marking of written work. Children are also encouraged to assess their own work and, where appropriate that of their peers.

Prior knowledge is assessed at the beginning of a topic. Children are encouraged to identify areas where they wish to learn and explore and to

generate their own questions. These questions / areas are revisited at the end of the topic to assess acquired knowledge.

Reporting is via twice yearly parental consultation and annual written reports

Information is also passed on to the next class teacher in order to aid a smooth transition.

Planning

Planning is based on the 'Early Years Foundation Stage Curriculum' and the 'National Curriculum'. Topics are delivered through a Creative Curriculum which runs on a four-year rolling programme. Planning of the scientific curriculum is done on an integrated basis throughout the whole school to ensure appropriate continuity and progression across the two years. All Year groups complete long term, medium term and short-term plans.

Science is planned making use of the whole school environment e.g. field, pond, playground and woods. Educational visits are planned to include opportunities to study the local environment, animal, and plant life in a range of habitats or exhibitions of scientific interest. Visits are directly linked to ongoing work in the classroom.

Organisation

Teaching takes place in settings that best suit the task, variously the classroom or appropriate practical areas either indoor and outdoor.

The activities, teaching and learning approaches used are matched to the learning needs of individuals or specific ability groups. Classroom organisation provides opportunities for working individually, in pairs, as part of a small group and as a whole class, appropriate to the age of the children and nature of the lesson. Tasks may be differentiated according to ability or individual needs. Initially children with SEN may require a higher level of teacher input.

Lesson which involves practical work will observe appropriate Health and Safety guidance.

Management and Co-ordination

The role of the subject leader is to:

- Provide a strategic lead and direction for the subject
- Support and offer advice to colleagues on issues related to the subject
- Monitor pupils progress in the subject area
- Manage the subject budget
- To monitor Science resources to support teaching and learning
- To monitor the teaching of Science throughout the school through classroom observations, learning walks and evidence gathering

Resources

The Coordinator is responsible for the annual Science budget and for buying and replacing resources. Science resources are readily available to all staff and are stored in the Science cupboard (located in the Work room at the back of the staffroom). Checks are made to ensure that the items are replaced as necessary. Children are encouraged to treat all resources with respect.

Books on scientific topics are available from the school library or in specific topic boxes.

SEN Provision

Planning will be differentiated to accommodate individual children's needs where relevant. Teaching and learning will take into account the current policy for children with special educational needs.

Able, Gifted and Talented

Children who show particularly talents in science activities are identified and put on the Able, Gifted & Talented register. They are then given opportunities to further develop their skills within lessons and through the opportunity to participate in outside events or activities (See A, G & T policy).

Inclusion

All children regardless of gender, ethnic group, culture, ability and EAL are entitled to full access to the Science curriculum (see Equal opportunities policy)

Health and safety

Lessons are taught taking into account the health and safety of all. Safe practice is essential and must be promoted, discussed and modelled at all times. Where necessary, risk assessments are carried out to ensure safety issues have been identified and managed effectively.