St. Anthony of Padua
Catholic Primary School

'Growing Together Following Jesus'

Science Curriculum Statement

This Science policy is set within the context of the whole school aims and mission statement.

Our Curriculum

The National Curriculum for Science in St Anthony of Padua aims to ensure that all pupils:
• Develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics
• Develop an 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 in the future.

In the Statutory Framework for the Early Years Foundation Stage, pupils learn about The Natural World as part of Understanding the World area of learning. At St Anthony of Padua, we aim to ensure pupils are the expected level of development by the end of Reception.

The Early Learning Goal for The Natural World states:

Children at the expected level of development will:

- Explore the natural world around them, making observations and drawing pictures of animals and plants;
- Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class;
- Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.

Through science pupils at St Anthony of Padua Catholic Primary School will continue to deepen their respect, care and appreciation for the natural world and all its phenomena.

Our Delivery

The children in St Anthony's begin their 'Scientific Journey' in our EYFS class. They investigate science as part of 'Understanding the World'. They are encouraged to investigate through practical experience. Our EYFS team guide the children and plan opportunities that allow the children to experience and learn whilst experimenting for themselves.

Pupils in Key Stage 1 will be introduced to science through focused observations and explorations of the world around them. The knowledge and content prescribed in the National

Curriculum will be taught throughout the key stage in a progressive and coherent way. At St Anthony of Padua we have developed a standardised investigation framework that children are introduced to in KS1 and become increasingly familiar with throughout KS2. Teachers in Key Stage 1 follow our strategically developed Long Term Curriculum plan and ensure all pupils learn and remember the key knowledge and skills required to progress to the next steps in their learning. This teaching and learning is enriched by the Collins Connect 'Snap Science' Scheme of Work.

Pupils in Key Stage 2 continue to follow our strategically developed Long Term Curriculum plan. In Year groups 3, 4 and 5, this plan is enriched and broken down into smaller progressive steps using the Haringey Education Partnership Science Scheme of Work. In Year 6 the teaching and learning is enriched by the Collins Connect 'Snap Science' Scheme of Work.

Further information on our Long Term Curriculum Plan for Science is outlined in our 'St Anthony of Padua Science Curriculum Rationale Document', which can be found on the Science page of our School Website.

Equality of Opportunity:

All pupils have equal access to our science curriculum and its associated practical activities. The SLT, Class Teachers and Support Staff at St Anthony of Padua Catholic Primary School are responsible for ensuring that all children have access to the whole curriculum and make the greatest possible progress. Where appropriate, work will be adapted to meet pupils' needs and, if appropriate, extra support given. Pupils will be given suitably challenging activities. Gender and cultural differences will be reflected positively in the teaching materials used.

All pupils have equal access to the Science Curriculum, its teaching and learning, throughout any one year. This is being monitored by analysing pupil performance throughout the school to ensure that there is no disparity between groups.

Health and Safety:

Pupils will be taught to use scientific equipment safely when using it during practical activities. Class Teachers and Support Staff will check equipment regularly and report any damage, taking defective equipment out of action. A simple risk assessment will be carried out for all practical activities any perceived hazards will be reported to the Head who will determine the appropriateness of said activity.

Breadth and Balance Variety:

Pupils will be involved in a variety of structured activities and in more open-ended investigative work:

- activities to develop good observational skills;
- practical activities using measuring instruments which develop pupils' ability to read scales accurately;
- structured activities to develop understanding of a scientific concept;
- open ended investigations.

On some occasions pupils will carry out the whole investigative process themselves or in small groups.

Our Children

At St Anthony of Padua, through a positive caring environment, we provide the opportunity for every child to reach their full potential. We embrace Catholic values and ensure all children are ready for their next steps. During their time at St Anthony of Padua we want our children to:

- Know and remember more about the disciplinary and substantive knowledge, including concepts, that are needed to work scientifically.
- Develop their enjoyment and interest in science and an appreciation of its contribution to all aspects of everyday life:
  - By developing their knowledge and appreciation of the contribution made by famous scientists to our knowledge of the world including scientists from different cultures;
  - By encouraging them to relate their scientific studies to applications and effects within the real world;
  - By developing their knowledge of the science contained within the programmes of study of the National Curriculum.
- Build on their curiosity and sense of awe of the natural world:
  - By developing their general sense of enquiry which encourages them to question and make suggestions;
  - By encouraging them to predict the likely outcome of their investigations and practical activities.
- Use a planned range of investigations and practical activities to give them a greater understanding of the concepts and knowledge of science:
  - By providing them with a range of specific investigations and practical work which gives them a worth-while experience to develop their understanding of science;
  - By progressively developing their ability to plan, carry out and evaluate simple scientific investigations and to appreciate the meaning of a 'fair test';
  - By developing their ability to record results in an appropriate manner including the use of diagrams, graphs, tables and charts.
- Be introduced to the language and vocabulary of science:

    - By giving them regular opportunities to use the scientific terms necessary to communicate ideas about science.
- Develop their basic practical skills and their ability to make accurate and appropriate measurements:
    - By giving them opportunities within practical activities to use a range of simple scientific measuring instruments such as thermometers and force meters and develop their skill in being able to read them.
- Develop their use of computing in their science studies:
    - By giving pupils opportunities to use ICT (video, digital camera, data logger) to record their work and to store results for future retrieval throughout their science studies;
    - By giving pupils the chance to obtain information using the internet.
- Extend their learning environment via our environmental areas and the locality.
- Understand the importance of a 'healthy lifestyle'.

Information regarding the teaching of science at St Anthony of Padua School can be found on the Science page of our school website.