



Diocese of Nottingham
Working in partnership with The Saint Robert Lawrence Academy Trust



The Priory Catholic Voluntary Academy

SCIENCE POLICY

Rationale

The benefits of learning about science for young children are enormous, not only does the subject help to explain how the world works but it develops in pupils important skills for life such as: questioning, perseverance, problem-solving and research. As such science starts in the primary school within a broad, integrated curriculum that encourages enquiry in a growth mind-set culture.



Science stimulates and excites pupils' curiosity about phenomena and events in the world. Through science, pupils understand how major scientific ideas contribute to technological change – impacting on industry, business and medicine and improving the quality of life. It can spark in children's minds that they, too, may one day be capable of creating solutions to solve the world's big problems.

Purpose

- To recognise that scientific knowledge is developing at a rapid rate and to maintain a balance of breadth and depth of knowledge and understanding, including making use of the latest technology.
- To learn to question and discuss science based issues that may affect their own lives, the direction of society and the future of the world.
- To ensure that children acquire the appropriate knowledge and understanding of the world to enable them to operate effectively and to make sensible decisions about science related issues that affect all our lives.
- To provide all children with scientific vocabulary to communicate their scientific knowledge.
- To involve children in carrying out simple investigations; raising questions, making observations and measurements, testing ideas fairly, finding evidence or investigating scientific phenomena.
- To enable children to seek patterns, evaluate results and draw conclusions about how things work.
- To enable children to identify problems or challenges and to suggest possible solutions having identified scientific concepts.
- To promote independent thinking whilst at the same time making science more interesting, enjoyable and relevant to children's everyday lives.
- To enable children to participate in 'hands on' scientific activities in which knowledge is externalised into actions, which are then observed and reflected upon.
- To recognise that there may be hazards with material, physical processes and in living things.
- To assess risks and take action to reduce risks to themselves and others.

Curriculum Guidelines

- Science units of work, as outlined for each year group in the New Curriculum (2014), will be delivered throughout school in order to ensure continuity and progression in knowledge, understanding and the skills required to work scientifically from Foundation Stage to Year 6.
- The curriculum map for Science is planned and reviewed on a yearly basis to ensure that the necessary knowledge, skills and understanding are taught in line with the New National Curriculum (2014), providing continuity and progression throughout school with pupils building on previous experience and skills.
- Our Science Progression Ladders (for Working Scientifically and Scientific Knowledge) show how the knowledge, skills and understanding are broken down into year groups and terms to provide this continuity and progression throughout the school. The school uses Science Knowledge Organisers to make it clear to the children what skills they will be learning in a topic and how this will build on their prior learning (knowledge, skills and understanding). They will also have key vocabulary and definitions on the Knowledge Organisers for the children to refer to during lessons.
- Science will be presented in a variety of ways to meet the needs of every pupil irrespective of age, gender, ability or race.
- Science will not solely be concerned with learning facts but also with practical exploration, investigation and experimentation through which children can acquire knowledge and understanding and be taught the recognised process skills required for; collecting ideas and evidence, planning investigations, obtaining and presenting results, considering and evaluating evidence.
- Science will be supported by making cross-curricular links with other subjects providing pupils with the opportunity to understand the real relevance of science and how to apply scientific thinking and skills to other areas of learning.
- It is important that pupils are given opportunities to apply and develop their key skills in Literacy, Numeracy, ICT and their personal and social skills through their learning in Science.
- Through careful planning a broad, balanced, challenging and purposeful science curriculum is ensured for all children.
- Science displays in every class will stimulate scientific enquiry, celebrate and share key learning.
- Further opportunities will be provided to extend, challenge and stimulate interest and excitement in science (such as visiting speakers).
- The science resources will be stored centrally and in classrooms to ensure that staff and children are adequately supported in the teaching and learning of scientific enquiry.
- Opportunities for links with other schools and staff CPD will be provided to ensure the continuation of quality science provision for pupils.

Monitoring & Assessment

- Assessment is integral to effective learning in science as it enables teachers and pupils themselves to think about what they know, understand and can do in science, and how to move that learning forward. (Formative teacher assessment and pupil self-reflection being most valued.)
- A termly summative assessment record (of ability to work scientifically) will be made for each pupil.
- Assessment criteria for working scientifically (for each year group) will be evident in pupil books to enable pupil self-assessment and development of the core science skills.
- Assessment grids (knowledge and understanding) for each science unit, identifying pupils who are emerging, met or embedded/exceeding, will be undertaken.

- Statutory assessment of science will take place at the end of Key Stage 2 and Key Stage 1 in line with government requirements.
- Assessment in the Foundation Stage takes place through observation, discussion and listening to the children in line with Foundation Stage Profile requirements.
- Termly skills and unit assessments will be recorded digitally on the school assessment system to enable monitoring and tracking of pupil progress.
- Monitoring and development of science will be the responsibility of the whole staff body, supported by the science coordinator and SLT.

Health and Safety

When working with tools, equipment and materials in practical activities and in different environments, including those that are unfamiliar, pupils should be taught:-

1. About hazards, risks and risk control.
2. To recognise hazards, assess consequent risks and take steps to control the risk to themselves and others.
3. To use information to assess the immediate and cumulative risks.
4. To manage their environment to ensure the health and safety of themselves and others.
5. To explain the steps they take to control risk.

This policy was developed during the Autumn Term 2019

Reviewed: Autumn 2020

Next Review: Autumn 2021