



# Longford Park School

Believe • Belong • Become

## Science Policy Longford Park School

Prepared : **2023**  
Reviewed : **October 2023**

Author : **R Lamb**  
Next Review : **October 2024**

Approved by Signed  
Governing Body : \_\_\_\_\_

Date : October 2023

The 2014 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 skills required to understand the uses and implications of science, today and for the future. We understand that it is important for lessons to have a skills-based focus, and that the knowledge can be taught through this.

At Longford Park School, we intend to encourage children to develop a sense of curiosity and inquisitiveness through their scientific study. Teachers ensure that the Working Scientifically skills are built-on and developed throughout a child's time at the school. This is to enable them to apply their scientific knowledge when conducting experiments and using equipment, constructing arguments and discussing and explaining concepts with confidence. They are continually encouraged to ask questions and be curious about their surroundings.

Scientific Enquiry	
Research	
Pattern Seeking	
Observing (Over time)	
Testing	
Identifying and Classifying	
Problem solving	

**Comparative / fair testing**  
Changing one variable to see its effect on another, whilst keeping all others the same.



**Research**  
Using secondary sources of information to answer scientific questions.



**Observation over time**  
Observing changes that occur over a period of time ranging from minutes to months.



**Pattern-seeking**  
Identifying patterns and looking for relationships in enquiries where variables are difficult to control.



**Identifying, grouping and classifying**  
Making observations to name, sort and organise items.



**Problem-solving**  
Applying prior scientific knowledge to find answers to problems.



Teachers foster a positive attitude towards science, underpinned by the promotion of an expectation that all pupils are capable of engaging and achieving.

Science is taught in topic blocks and children are encouraged to solve problems, pose questions and find out for themselves. Children are encouraged to use scientific skills and different types of scientific enquiry to find out the answers for themselves. Teachers use resources to create a culture of curiosity and child-led learning. Teachers create engaging lessons, utilising resources, to encourage a 'hands on' approach to learning.

Through the use of targeted questioning, teachers are able to test and assess children's conceptual knowledge and skills, identifying any gaps in learning and misconceptions children may have.

Throughout the school working scientifically skills are incorporated into lessons to ensure these skills are being developed and new vocabulary (sticky knowledge) and concepts are introduced through direct teaching.

Children receive effective feedback through oral and written (in line with the school's marking policy) teacher assessment. Lesson toolkits provide children with a clear roadmap towards achievement of the main objective through the use of process based 'success criteria', provided by and explained by the teacher. These are displayed in children's books for them to refer to. They are also used to identify areas of difficulty by children and teachers when reviewing and assessing work.

Teachers assessment for learning is continuous throughout the planning, teaching and learning cycle. Children are also assessed by- observations of children at work (individually, in pairs, in a group, and in classes), questioning (talking and listening to children), consideration of work/materials / investigations produced by children together with discussion about this with them.

Summative assessment is carried out three times a year (termly), where individual pupil LPS levels and percentages are set. These levels are then subject to scrutiny and moderation at the end of each term.

Science will be taught in planned and arranged topic blocks by the class teacher, 5 topics (4 topics for Year 2) that can be covered at any point throughout the year. These topics will be covered for each year group.

### Long term plan

Year Group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Science Week
Reception	Colour Ourselves	Celebrations Fairy Tales	People who help us	Science week	Animals	Animals	Spring 2
Year 1	Seasonal Changes	Animals including humans	Animals including humans	Materials	Plants		Spring 2
Year 2	Catch up curriculum	Living things and their habitats	Materials	Animals including humans	Plants		Spring 2
Year 3	Rocks	Light	Forces and Magnets	Animals including humans	Plants		Spring 2
Year 4	Animals including humans	Sound	States of matter	Electricity		Living things	Spring 2
Year 5	Forces	Properties of matter	Space	Living things and their habitats		Animals including humans	Spring 2
Year 6	Animals including humans	Evolution and Inheritance	Electricity	Light	Living things and their habitats		Spring 2