Lower Darwen Primary School Science Policy

Intention, Implementation and Impact.

Intention:

Lower Darwen Primary School believe that a high-quality science education provides children with the opportunity to explore, investigate, question and understand the ever-changing world in which we live. By providing them with such opportunities we consider ourselves to lead the way and prepare students with the skills, methods, knowledge and attitudes required for life in the 21st century. Using the framework of the National Curriculum as our backbone, the children will develop key knowledge that has been identified within each unit, outlined across each year group. Thus providing a methodical progression throughout students' school journeys.

With the national curriculum underpinning our science outcomes, Lower Darwen Primary School's Science aims are to:

- 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 write their own and answer scientific questions about the world around them
- Equip children with the scientific knowledge required to understand the uses and implications of science, today and for the future

Subsequent to the Covid-19 pandemic, we have revised our science policy to provide quick, effective and quality recovery in-keeping with the high standards that we challenge our children with.

IMPLEMENTATION

Our science aims to nurture children's inquisitive mindsets about the world in which we exist and encourages children of all backgrounds, genders and race to develop original ideas and thought-provoking questions. Our teaching team realise that a positive and engaging approach to science is required and strengthen this with the expectation that all of our students are capable of achieving high standards.

Science is taught and planned with a thematic approach in mind. It bases the teaching and implementation around investigation, observation and application of a specific area of science and builds on children's prior learning and secure knowledge. Pupils should be able to describe scientific processes and key features using everyday terms, whilst also be familiar with, and use, technical terminology accurately and precisely, appropriate to each Key Stage. To ensure children are retaining, reviewing and provided with the opportunity to develop this, lessons are taught on a weekly basis and use explicit instruction to provide a clear and meaningful rationale for learning. Furthermore, through careful planning we facilitate problem solving opportunities for our students and act as a catalyst for generating innovative thought-processes, enabling individuals to form their own ideas and conclusions.

Children in the foundation stage are taught science as indicated in the EYFS Statutory Framework (2021) under the prime focus of 'understanding the world.'

To provide a balanced learning experience, the teaching of science should lend itself to our school's creative curriculum and relate to other subject areas such as PE, Math and Literacy as well as making use of our outdoor learning environments where possible.

Additionally, children are offered a wide variety of extra-curricular activities, all of which complement our celebration of science. These include, and are not restricted to:

- After school clubs
- Visits to other schools we are linked with such as DACA
- Trips
- Visitors from varying sectors

The curriculum overviews are available on the shared file system we currently operate via Teams. Alternatively, they can be found with the relevant year-group teachers, on our school website and via Class Dojo giving access to all our children, parents and visitors. Science books and medium term plans are monitored by the science coordinator on a termly basis, and support is given when required. The progression of science is also clearly displayed on our curriculum boards for clear links and demonstration of learning.

Health and Safety is paramount in the teaching of Science. Children are reminded and taught about the potential hazards and work with their class teachers to assess any potential risks before conducting any experiments. Teachers should also refer to CLEAPPS for guidance with health and safety when planning their science lessons.

Impact

The subject leader is responsible for monitoring the standard of the children's work and the quality of teaching in line with the school's monitoring process. Assessment for learning is continuous throughout the planning, teaching and delivery of learning.

A variety of assessment methods are used; these include:

- Observing children at work (individually, in pairs, in a group and in classes)
- Questioning, talking and listening to children
- Monitoring of pupils' work through regular book scrutiny and where children have an opportunity to discuss and reflect upon their own work
- End of unit assessments
- Children's work is continually monitored and tracked

The subject leader is also responsible for supporting colleagues in the teaching of science, for being informed about current developments in the subject and for providing a strategic lead and direction for the subject in the school.

By close monitoring, support and review misconceptions and gaps can be addressed more immediately rather than building on insecure scientific foundations.

It will also allow children at Lower Darwen Primary School to:

- Demonstrate a love of science work and an interest in further study and work in this field
- Retain knowledge that is pertinent to Science with a real life context.
- Be able to question ideas and reflect on knowledge.
- Be able to articulate their understanding of scientific concepts and be able to reason scientifically using rich language linked to science.
- Demonstrate a high love of mathematical skills through their work, organising, recording and interpreting results.
- Work collaboratively and practically to investigate and experiment.
- Achieve age related expectations in Science at the end of their cohort year.

Completed: 18th November 2021
To be reviewed: