



## Science Policy

### Lidget Green Primary School

Science teaches an understanding of natural phenomena. It aims to stimulate a child's curiosity in finding out why things happen in the way that they do. It teaches methods of enquiry and investigation to stimulate creative thought. Children learn to ask scientific questions and begin to appreciate the way Science will affect their future on a personal, national and global level.

This policy is set out to ensure consistency in the teaching and learning within Science across our school in order to ensure pupils are equipped with the ability to explore, discover and investigate. These first-hand experiences will enable them to understand more about the world they live in. We aim to ensure such experiences will be appropriate, relevant, challenging and satisfy the children's curiosity. Children are encouraged to ask questions based on observations, work independently and also as a team.

At Lidget Green Primary, we teach Science both as a discrete core subject and through cross-curricular lessons wherever possible. Science topics are linked to the children's experiences of the world around them and children develop 'working scientifically' skills throughout the school.

#### **Intent**

At Lidget Green Primary School, we believe that a high-quality Science education provides the foundations for understanding the world. Science in our school is about developing children's ideas and ways of working that enable them to make sense of the world in which they live, through investigation.

We aim to:

- Develop a range of scientific skills through the Science enquiry skills.
- Build on children's natural curiosity by relating it to the world around them.
- Teach the children scientific knowledge and skills through practical work.
- Stimulate children to investigate, question and develop attitudes of Science so they become active and engaged learners.
- Through dialogic talk, encourage them to communicate ideas using appropriate scientific vocabulary and evaluate their findings and suggest explanations.
- Build on children's prior knowledge.

- Make cross-curricular links with other subjects to broaden their knowledge and create excitement through the links.
- Help the children explore and discover new things to extend their learning.

## **Implementation**

Planning for Science is a process in which all teachers are involved to ensure that the school gives full coverage of, 'The National Curriculum' and, 'EYFS Framework'. Science teaching is adapted to all pupils needs.

We ensure that all children are provided with rich learning experiences that:

- Prepare our children for life in an increasingly scientific and technological world today and in the future.
- Help our children acquire a growing understanding of the nature, processes and methods of scientific ideas.
- Help develop and extend our children's scientific concept of their world.
- Build on our children's natural curiosity and developing a scientific approach to problems.
- Encourage open-mindedness, self-assessment, perseverance and developing the skills of observing, measuring, predicting, hypothesising, experimenting, communicating, interpreting, explaining and evaluating.
- Develop the use of scientific language, recording and techniques.

## **Planning**

Teachers will plan for opportunities to allow children to undertake different types of scientific enquiry and investigations in order to deepen their scientific knowledge. Lessons are planned to build upon prior learning. We ensure that there are opportunities for children of all abilities to develop their skills and knowledge in each unit so children are increasingly challenged as they move up through school.

Early Years Foundation Stage teachers will plan opportunities to ensure children are gaining first hand experiences to investigate, make observations and discover knowledge about their world. They will ensure children are able to comment upon and raise their own questions about the world around them.

We carry out our curriculum planning in Science in three phases (long-term, medium-term and short-term). The long-term plan maps the scientific topics studied in each term across the year. Medium-term plans give an overview of the weekly lessons. Short term plans, which vary in format depending on the age of the class, list the specific learning objectives of each lesson and the learning opportunities which will support the teaching of these objectives.

## **Teaching**

A variety of teaching and learning styles are used in Science lessons in order to develop children's knowledge, skills and understanding. Children are given the opportunity to work

scientifically to experience different types of scientific enquiries, including practical activities, and recognise ways in which they might answer scientific questions. They are given the opportunity to gather data through simple tests, to record this data and to talk about what they have found out as a result of their investigations. Children are able to predict what may happen and draw conclusions from their findings. Through teacher modelling and child talk they begin to use and understand simple scientific vocabulary. Teachers will ensure that children's scientific knowledge is developed and deepened as a part of Science lessons. Using dialogic talk, children take part in discussions and have the opportunity to present their work to the rest of the class.

We recognise that children have differing scientific abilities and learning styles; we aim to provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child. This is achieved in a variety of ways, such as setting open ended tasks and differentiating the tasks according to ability.

## **Assessment**

All lessons have clear learning objectives, which are shared and reviewed with the pupils effectively. A variety of strategies, including questioning, discussion and marking, are used to assess progress. Teachers' continuous formative assessment is used to identify what is taught next. Teachers record assessments for Science on Target Tracker at the end of each half term.

## **Monitoring**

The Science subject leader is responsible for monitoring the standards of children's work and the quality of teaching. The leader supports colleagues in the teaching of Science by providing a strategic lead and direction for the subject in the school and offering practical support where appropriate. The subject leader is also responsible for reviewing developments for Science identified on the School Improvement Plan, evaluating strengths and weaknesses in the subject, and indicating areas for further improvement through book reviews and lesson observations.

## **Health and Safety**

Teachers are responsible for carrying out risk assessments when planning lessons to ensure that health and safety standards are met through the safe use of equipment and the use of safe and appropriate materials, taking into account potential allergies. These risk assessments should be shared with SLT at least 48 hours before the lesson takes place.

## **Impact**

Impact is measured by ensuring children acquire appropriate age-related knowledge linked to the Science curriculum.

All children will have:

- A wider variety of skills linked to both scientific knowledge and understanding, and scientific enquiry/investigative skills.
- A richer vocabulary which will enable to articulate children's understanding of taught concepts/ knowledge.
- Scientific knowledge of the world around them.
- High aspirations, which will see them through to further study, work and a successful adult life.

Approved by SLT

Date: 19th July 2022

Signed: Christine Moran