

# Lovers' Lane Primary and Nursery School



## Science Policy

Date Reviewed: September 2022

Next review date: July 2023

**Science Policy**

## **Introduction**

Lovers' Lane Primary is a friendly and caring school in which the children are supported and encouraged through lessons, assemblies and playtime to achieve their best in every aspect of their learning. Within our diverse and inclusive community, we aim to nurture individuals and develop pride and mutual respect for each other and our school through our core values - Show Respect, Work together, Aspire and Nurture.

This policy sets out Lovers' Lane Primary and Nursery School's aims and strategies for the successful delivery of Science. This policy should be read in conjunction with other relevant school policies such as the Safeguarding, Equal Opportunities, Curriculum, Finance, Teaching & Learning, SEND and Assessment policies. The policy has been developed by the Science Leader in consultation with the Headteacher, SENCO, Leadership Team and teachers. Guidance from consultants and pupil, parent and staff voice questionnaires have shaped and will continue to help shape this policy. This policy is based on government recommended/statutory programmes of study. It is anticipated that this policy will be reviewed at the start of every academic cycle.

## **Aims and Objectives**

Children enter education curious and inquisitive and we want to encourage and sustain this curiosity. We aim to do this through hands-on- learning and through an investigation-rich curriculum. Science is very important in preparing children for their adult life, we also aim to develop their understanding of Science Capital – how science is applied in everyday situations, including application in different types of employment or hobbies. By making cross-curricular links across the wider curriculum we aim to enable children to put knowledge, skills and understanding into a meaningful context and deepen their learning.

## **Aims in Science**

At Lovers' Lane Primary and Nursery School, we aim to:

- Nurture children's enjoyment of science through practical tasks;
- Use a creative approach throughout the curriculum through interactive and engaging lessons, including the use of ICT;
- Teach and develop skills, knowledge and understanding;
- Make learning meaningful;
- Develop understanding of different types of investigation and how to set them up;
- Develop mathematical skills through data handling and interpretation of results;
- Develop reasoning and problem solving skills;
- Develop teamwork through investigation work.

## **Health and Safety**

Health and Safety are always of paramount importance in school, including in the teaching of science. Teachers will check that equipment is stored and used safely. As part of science teaching, they will ensure that the children know and understand how to use and handle equipment with safety in mind. Where children enjoy educational visits, or visitor led sessions in school related to science learning (eg science demonstrations from local colleges), the appropriate procedures will be followed, including risk assessment and planned precautions taken to ensure pupils will be safe and well supervised at all times.

## **Curriculum**

At our school, children in Early Years (Nursery and Reception) follow the Early Years Foundation Stage curriculum which encompasses science skills, knowledge and understanding through the area of learning called 'The World'.

Across KS1 and KS2 learning content follows the National Curriculum expectations and teach our pupils to think 'like a scientist' as well as learning scientific facts, knowledge and concepts. Teachers follow a whole school progression map for science, which is a document that maps out the progression of knowledge, understanding and skills from Years 1 to 6. The science lead has supported staff in writing medium term planning (half termly plans) to ensure that this progression intent is delivered fully to our children year on year, term by term, lesson by lesson. Where possible cross curricular links are made to deepen the children's knowledge by making connections in learning at our school.

## **Early Years Foundation Stage**

In the Foundation Stage, children are taught Science through the key areas of learning set out within the EYFS Statutory Framework. Through a broad range of teacher-led, child-initiated and continuous learning opportunities, children will be taught to:

- Use their senses to investigate a range of objects and materials
- Find out about, identify and observe the different features of living things, objects and worldly events
- Look closely at similarities, differences, patterns and change
- Ask questions about why things happen and why things work
- Develop their communication and co-operation skills
- Talk about their findings, sometimes recording them
- Identify and find out about features of the place they live and in the natural world around them

## **Key Stage 1 and 2**

In Key Stage 1 and 2, Science will be taught in planned and arranged topic blocks by the class teacher, these are, where appropriate linked to the Year group's overall Topic theme. This ensures that all topics are covered and enables progression through the year groups. Children have weekly Science lessons, with teachers following the scheme of work, but adapting lessons where necessary to suit the needs of their class.

The following topics are covered throughout Key Stage 1:

- Animals, including Humans
- Everyday Materials
- Plants
- Seasonal Changes
- Living Things & their Habitats

The following topics are covered throughout Key Stage 2:

- Plants
- Living Things & their Habitats
- Animals, including Humans
- Rocks
- Light
- Electricity
- Sound
- Properties and Changes of Materials
- Earth & Space
- Evolution & Inheritance
- Forces & Magnets

### **Assessment:**

Assessment has two main purposes

- Assessment of learning (also known as summative assessment).
- Assessment for learning (also known as formative assessment).

At Lovers' Lane Primary School, we recognise that quality assessment and feedback lie at the heart of growing learning and raising standards of attainment.

End of Stage expectations are set out for Years 2, 4 and 6 to ensure clarity of expected outcomes when our progression is implemented effectively.

## **Resources**

Resources are regularly audited and replenished. Although the Science coordinators take responsibility for this, it is expected that staff will report damages or used consumables to the Science Coordinators. Most resources are organised into topic boxes in the resource areas and classrooms.

## **Inclusion**

At Lovers' Lane, we aim to enable all of the children to achieve to their full potential. It is important to us that all children who may need it will have appropriate adjustments made in the planning of lessons and resources available to access the learning offer in full in science, no matter what their special educational need, disability, vulnerability, level of disadvantage or first language is.

## **Monitoring and Evaluation of the Quality of Education in Science**

It is vital that quality of education in science is monitored and evaluated regularly. To do this, the science lead will conduct a range of activities to gather an accurate picture of science provision across the school and the impact of this on children's learning. Senior leaders will quality assure the judgements of the science lead and this will inform whole school improvement over time.

### **The science lead will monitor quality of science provision through:**

- Looking at children's work in their books
- Visiting and watching lessons
- Talking to children
- Talking to staff
- Looking at the classroom display and environment with science in mind

### **Roles and Responsibilities of Subject Leader:**

- Raising the profile of Science for all stakeholders;
- Monitoring the standards of Science and feeding back to staff in a timely fashion so they can act on areas for development;
- Ensuring assessment systems are in place for Science;
- Maintaining overall consistency in standards of Science across the school;
- Reporting on Science at specific times of the year to the Governing Body/Head/Staff.
- Auditing the needs of the staff in terms of training/CPD;
- Actively supporting staff with their day-to-day practice;
- Seeking out opportunities to inspire staff in developing their practice through modelling and sharing new ideas, approaches and initiatives;
- Attending training and keeping up-to-date with the latest educational initiatives;
- Using nationally recognised standards to benchmark Science;
- Creating Action Plans for Science and supporting a long-term vision which feeds into the whole school improvement plan;
- Keeping an up-to-date log of all resources available to staff;
- Procuring physical and online resources that demonstrate best value;
- Reviewing the Science curriculum and developing it as needed.