



Learning happily together

## Science

### Subject Intent

At Lowe's Wong Infant School it is our intention to develop in our children a lifelong curiosity and interest in the Sciences. We believe that by learning happily together we can develop children's ideas and ways of working, to enable them to make sense of the world in which they live.

Science is a body of knowledge built up through the experimental testing of ideas and through our carefully planned curriculum we intend to develop the practical way in which our children can begin to find answers to questions they may ask about the world around them. Through our Science teaching we will encourage all children to develop a positive attitude towards Science. The children will have a deeper understanding of plants, animals, including humans, uses of everyday materials and their properties, seasonal changes, living things and their habitats. Children steadily build on their scientific knowledge and vocabulary as they move through the school starting in EYFS. Science will be taught through cross curricular enquiry themes that will inspire our children to ask questions and explore answers through practical hands-on experiences whenever possible.

Children will leave Lowe's Wong Infant School with an enquiring mind that gives them a sense of excitement and curiosity about natural phenomena, and a wonder about the world.

It is our intent to help them to develop and extend their scientific concepts, and to encourage them to ask deeper questions about the world around them. We will enable children to become effective communicators of scientific ideas, facts and data.

### Subject Implementation Plan

#### Timetabling

At Lowe's Wong Infant School Science is taught in blocks linked where possible to our Enquiry Themes. There will be a Science lesson every week in KS1.

In EYFS, Science opportunities are continually provided during 'Explore and Investigate' activities (child-initiated time). There is also planned teaching of scientific concepts from the Understanding the World strand of the EYFS curriculum, these are shown on the long-term plans.

In KS1, Science lessons are taught in blocks. This is clearly mapped out on the long-term plans for each year group. Each block of teaching also includes planned opportunities for working scientifically.

#### How Science is taught

In EYFS Science is taught following the guidance given in the Understanding the World strand of Development Matters, supporting the children to work towards achieving the Early Learning Goals. It is delivered through planned, purposeful play and through a mix of adult-led and child-initiated activities. Some scientific concepts will be explicitly taught through whole class discussions. Science based learning will take place within the classroom, in the courtyard and also through a weekly Muddy Explorers lesson.

In Science at Key Stage One we follow the National Curriculum, which sequences and structures the teaching into the year groups. These sequences are planned into blocks using the White Rose Scheme.

Classes within year groups follow parallel activities and study to ensure equal opportunities and consistency. Although where specific gaps or needs have been identified then some adaptations will be made.

Within Science lessons there are opportunities for children to recap and recall learning and prior knowledge.

Children will be actively encouraged to participate through questions and answers, partner talk and engaging in practical tasks to develop their 'working scientifically' skills. These skills will be explicitly taught during Science lessons. Outdoor learning will be used as a part of teaching and learning in Science when it is appropriate.

Key vocabulary and knowledge will be shared with parents/carers through our sticky knowledge sheets that are sent home at the start of each half term.

### **Resources**

The Science resources are stored behind the curtain in the small dining room in labelled boxes. There is a selection of non-fiction books in the library and staff can order extra books through the Education Library Service.

Purple Mash has some resources for teaching and learning in Science. BBC Bitesize and other suitable websites are also used to help teach Scientific concepts and knowledge.

### **Marking, feedback and assessment**

Teachers acknowledge work with a tick and comments may also be used to provide feedback linked to the Learning Objective. The Learning Objective should be RAG rated to show understanding.

Teachers use their marking, informal observations and discussions with the children to complete a data drop at the end of each term on the Excel Assessment tracker. This will be monitored by the Science lead and findings shared with staff.

Teachers should mark according to the Feedback and Marking Policy.

In EYFS annotated photographs are used to show the children's understanding of a concept. Feedback will often be verbal and at the point of discussion, staff use this opportunity to move the learning forward in the moment. Teachers use their marking, informal observations and discussions with the children to complete a data drop at the end of each term on Scholar Pack. The Natural World strand of Understanding the World data will be monitored by the Science lead and findings shared with staff.

### **Recording work**

In KS1 children record their Science work in a Purple Science Folder or in the class floor book. Each piece of work has a date and a clear learning objective. The learning objectives include knowledge and skills.

Scientific work recorded in the class floor book has appropriate annotations by the children or staff.

In EYFS much of the recorded work will be photographs in their Learning Journey books with annotations to show the children's understanding.

### **Learning Environment**

The resources used in Science will be of good quality with enough of them to support all the children. There are displays in the classrooms that reflect the learning. These include key vocabulary and examples of the children's work.

### **Curriculum Enrichment**

The Science curriculum at Lowe's Wong Infant School is enhanced through educational visits and outside learning opportunities.

**SEND**

All children have equal access to the Science Curriculum through quality first teaching. Support is given where required to ensure all children can participate in a broad and varied curriculum as part of an adaptive teaching strategy.

Some examples of this are:

Allow sufficient time for the children to talk through and share their ideas (with an adult when available or through talk-partners)

Discuss and display key vocabulary together with its meaning in the classroom - practise saying it together and refer to it regularly during the lessons.

Use visual aids where appropriate to help learners to identify equipment.

Introduce each piece of equipment – name it, explain what it does, and model how it can be used.

Allow for movement breaks for those who have additional sensory needs or struggle with attention to give them time to self-regulate. These learners could be given jobs such as handing out resources.

Use alternative methods to record children's knowledge e.g. adult scribe, pictures, photographs, videos.

Additional adults may be used to provide scaffolding if appropriate.

**Behaviour**

All children are expected to demonstrate good sitting during Science lessons whether on their chair or the carpet and not touching the equipment, until asked. All children are to demonstrate good looking by looking at the member of staff, rather than their equipment. All children are to demonstrate good listening by sitting quietly, not talking to others and listening to the teacher. During practical work and when recording in their book's teachers use the visual prompt cards – Whispering Whales, Silent Snails and Talking Turtles to determine the level of noise for the activity.

Children will be taught to handle the scientific resources with care and to help tidy up after any practical work.

Good behaviour will be rewarded in line with the school's behaviour policy.

It is expected that teachers will respond to any misbehaviour promptly during Science lessons by following the school's agreed behaviour policy of warnings, reflection and time outs.