

***“Science is simply the word we use to describe a method of organising our curiosity”.***

*Tim Minchin, composer and writer*



*Year 2 child exploring animal classification.*



*Year 4 children building and testing an electric circuit.*

## **Our Key Concepts for teaching and learning in science**

### **Working scientifically**

- asking questions and recognising that they can be answered in different ways
- making observations and taking measurements
- engaging in practical enquiry to answer questions
- recording and presenting evidence
- answering questions and concluding, evaluating and raising further questions
- predictions, communicating their findings.

### **Biology**

- understand plants
- understand animals and humans
- investigate living things
- understand evolution and inheritance.

### **Chemistry**

- investigate materials.

### **Physics**

- understand movement, forces and magnets
- understand the Earth's movement in space
- investigate light and seeing
- investigate sound and hearing
- understand electrical circuits

## **At Woolmore becoming a Scientist involves developing**

- scientific knowledge and understanding of science through the study of biology, chemistry and physics.
- understanding of the nature, processes and methods of science to work scientifically.
- forming scientific enquiries to help answer scientific questions about the world around us.

- appropriate scientific vocabulary to present findings and talk about our learning.
- scientific knowledge to understand the uses and implications of science, today and for the future.

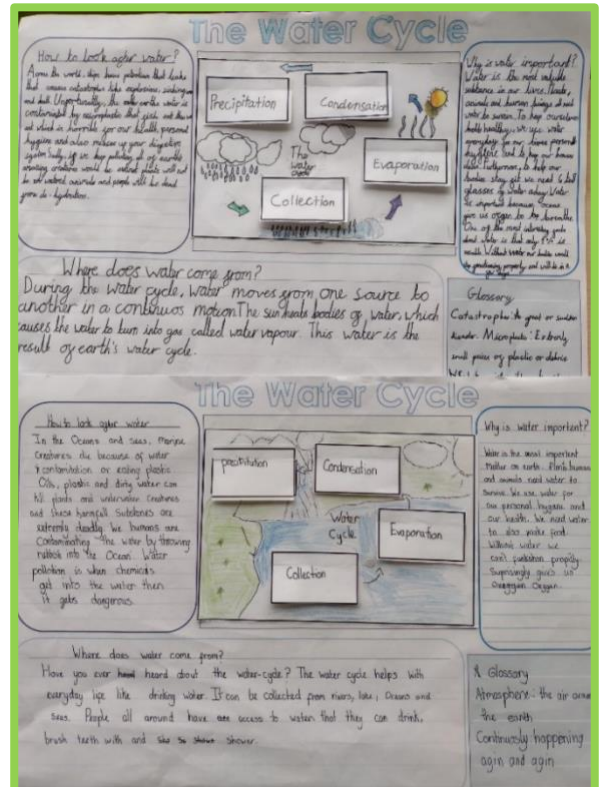
## What makes Science at Woolmore special?

### 1. Combining meaningful cross-curricular links and discrete science teaching

Lessons are sequenced thoughtfully to support meaningful links to wider curriculum subjects, where possible. This deepens children's understanding of scientific concepts as well as providing opportunities to build children's wider schema.

For example, in Year 4, our children study the topic 'Misty Mountain, Winding River.' Scientific knowledge plays a pivotal role in this unit as children learn about the changing states of the water cycle. This fosters children's understanding of scientific processes in the natural world and supports their curiosity about the world around them.

Judicious choices are also made about when to teach science units discretely rather than forcing weak or ineffective curriculum links.

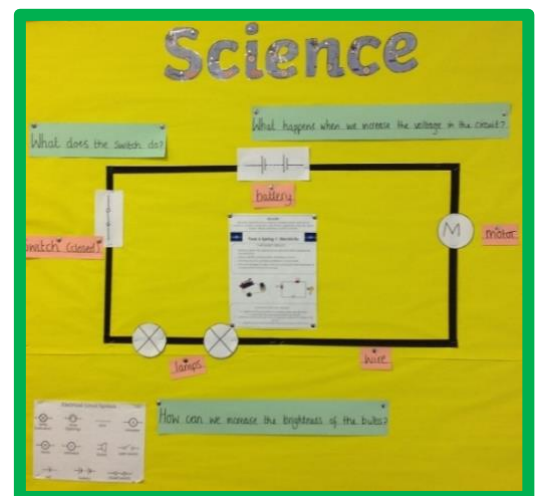


Y4 Water cycle learning linked to Geography learning and English non-fiction writing.

### 2. A strong focus on our children understanding and using scientific vocabulary

'The quality and variety of language that pupils hear and speak are key factors in developing their scientific vocabulary and articulating scientific concepts clearly and precisely.' Ofsted 2015

Our curriculum is carefully planned to sequentially introduce children to key scientific knowledge and vocabulary. This ensures that children can use the appropriate scientific vocabulary accurately and confidently. As such, children are empowered to engage in discussions about science and develop their working scientifically skills.



Y6 Electricity display with key components of a circuit.

# SCIENCE at Woolmore

Spoken language and use of vocabulary underpins children's ability to ask relevant scientific questions, make verbal predictions about the outcomes of enquiries and present their findings.

For example, the use of 'partner talk' in science lessons enables children to rehearse their use of scientific vocabulary and develop greater oracy with new terminology. The focus on vocabulary also enables teachers to address children's scientific misconceptions and clarify children's thinking around scientific concepts.

We build links into our reading curriculum so that children have opportunities to learn and consolidate key scientific vocabulary through reading high-quality texts together.

We use the award-winning PLAN assess materials to shape our curriculum.