



## Science Policy Statement

### To be reviewed Autumn 2020

### Vision

We believe that the understanding and teaching of Science is engaging, practical, hands on and interactive. Science encourages children to be curious about the world around them and to be excited about what they are finding out. Science inspires thinking and discussion both inside and outside the classroom and allows our children to make their own spontaneous links based on their predictions and knowledge.

### Aims

Science at Long Ditton Infant and Nursery School aims to ensure children:

- Grow in confidence in science so they are able to express their ideas using scientific language
- Begin to make sense of their observations and investigations by suggesting possible explanations
- Communicate their knowledge and understanding in a variety of ways
- Formulate and share ideas and begin to work out ways of testing them
- Help pupils develop, model and evaluate explanations through scientific methods of collecting evidence using critical and creative thought.
- Recognise hazards and risks when working with living things and materials
- Make simple and accurate measurements
- Develop an enthusiasm and fascination about science itself
- Become curious about their environment and the natural world
- Develop respect for the environment and living things
- Show pupils how major scientific ideas contribute to technological change and how this impacts on improving the quality of our everyday lives today and in the future.



### Areas of Study

**Working Scientifically:** - This focuses on teaching the children good thinking and investigative skills.

**Plants, Animals (including humans) and habitats:** - This focuses on humans and other animals, plants and our environment.

**Materials and their properties:** - This focuses on grouping materials and looking at how materials change. To distinguish between an object and the material it is made from. Compare and identify the suitability of a variety of everyday materials.

**Living things:** - Investigating what is alive and not alive and what things need in order to survive.

**Seasonal changes:** - observe the changes across the four seasons. Observe and describe weather associated with the seasons and how day length varies.

### Health and Safety

Children must be taught to handle scientific equipment with care and respect. Risk assessments are taken prior to any offsite visits. Children must be closely supervised when taking part in field-work and are taught about the dangers and how to take responsibility for their own safety.

### Values

We aim to teach children to uphold, where applicable, British values and a mutual respect and tolerance of those with different faiths and beliefs. We are a Living Values school and each month the children will focus on one value within every area of the curriculum. Through our **SMSC provision (Spiritual, Moral, Social & Cultural)** we enable pupils to develop their self-Knowledge, self-esteem, & self-confidence. Pupils will learn right from wrong and to respect other cultural differences.



## How is science taught?

Science is taught through topics. The programmes of study are covered in half termly topics using the objectives from the Long Term Curriculum maps. Some activities may arise from topical events and happenings. The emphasis in our teaching of science is on first-hand experience and secondary sources, and wherever possible, through practical investigative and questioning work.

- . Dialogue is encouraged
- . Careful observation is fostered.
- . Resources are made available.
- . The children are encouraged to communicate their scientific findings to others using a variety of methods including written or verbal reports and use of graphs or pictures.

### Foundation Stage

In the Early Years Foundation Stage science is taught within "Understanding the World". Understanding the World is broken down into three parts—People and Community, The World and Technology. It is how children get to know about other people, the place where they live and about all aspects of the environment. Children are given opportunities to solve problems, make decisions, experiment, predict, plan and question in a variety of contexts. They are encouraged to explore and find out about their different aspects of their environment, people and places that have significance in their immediate lives.



### Key Stage 1

In Key Stage 1 Science is broken down into 6 areas of study—Working Scientifically, Plants, Animal including Humans, Everyday materials, Seasonal Changes and Living things and their habitats.

During Key Stage 1 pupils observe, explore and ask questions about living things, materials and physical phenomena. They begin to work together to collect evidence to help them answer questions and link this to simple scientific ideas. They begin to evaluate evidence and consider whether tests or comparisons are fair. They use reference materials to find out more about answering questions and scientific ideas. They share ideas and communicate them using scientific language, drawings, charts, and tables with the help of technology when it is appropriate.

### How to Help at Home

Asking questions about why things happen, for example what happens to water when you put it in the freezer? . Looking at the properties of different materials. Are they rough, smooth, shiny? Which material is waterproof? How can we test it?

Observing the changes in the weather and describe how the seeds and bulbs grow into mature plants.

### Equal Opportunities and Inclusion

All pupils irrespective of ethnicity, religion, gender or ability are given equal access to the Science curriculum where possible. Able, gifted and talented pupils will be supported through the subject developing analysis, thinking skills and evaluation techniques. Teachers will aim to be sensitive to problems linked to ethnicity and religion as well as promoting an appreciation for, and an appreciation of life in modern Britain. We aim to teach children to uphold where applicable British values and a mutual respect and tolerance of those with different faiths and beliefs.

### Website Links

<https://www.bbc.com/bitesize/subjects/z6svr82>

<http://www.primaryresources.co.uk/science/science.htm>

<http://www.sciencekids.co.nz/>

