



By the time the children transfer to their next stage of education, we intend to develop well-rounded, knowledgeable and confident individuals who have fulfilled their potential and can make a positive contribution to their local and global community.

Science at Lindow Community Primary School

Intent

At Lindow Community Primary School, our intent is to provide a rich, challenging and exciting science curriculum, which inspires our children to become curious and motivated individuals who have knowledge about the world through the disciplines of Biology, Chemistry and Physics. We want our children to care about their environment and to inspire lifelong learning in Science through a balanced progressive curriculum, driven by the following Lindow Life Skills:

- *Be Articulate*
- *Be co-operative & participate*
- *Have ownership of learning*
- *Be organized*
- *Make decisions*
- *Be responsible*
- *Be resilient & persevere*
- *Be the best you, you can be*

Design and implementation

To ensure children have 'mastered' the knowledge of the Programme of Study for Science in a progressive, sequential way, the subject is taught in 5 unit blocks throughout the academic year, focusing on one topic over the course of one half term. As this then leaves one half term free, this allows teachers the time to extend science learning through cross curricular learning if appropriate. In addition, the timing of specific reading, writing and maths teaching will be aligned to support the knowledge and skills needed to demonstrate learning in science e.g., age-appropriate reports, data handling, biographies of Scientists, use of scientific vocabulary, considering scientific concepts in the context of a book during writing lessons. All these factors support children's assimilation between science and everyday life and learning and support the notion that 'science is everywhere we look'.

All classes from Y1 to Y6 use the National Curriculum Science document which covers the subject specific content for Biology, Chemistry & Physics. To support their teaching, teachers can refer to the Lindow Working Scientifically Skills Progression document to ensure that children experience the different types of scientific enquiry and the associated skills. Topic specific vocabulary for both content and working scientifically will be displayed in the classroom. The topics for each year group are stated, to ensure teachers know what prior learning has taken place and can build on this in a progressive manner.

The expected teaching sequence for a new unit of work will begin with an exploratory session to ascertain what children already know about the topic. This session may involve independent thinking or group discussions, depending on the age of the children.

Teaching of the topic will incorporate a variety of strategies, for example:

- knowledge acquisition via books/research/demonstration.
- There will always be a minimum of one practical investigation chosen from the 5 different enquiry types and the associated skills required for each enquiry.
- Revisiting their original thoughts/ideas as the unit progresses through discussion with peers, adults, further research, observations.
- Work in science is recorded in science books in a variety of age-appropriate ways e.g. written reports, diagrams, tables, photographs.

EYFS

- The EYFS is structured differently to the National Curriculum i.e., 7 areas of learning rather than specific subject areas. We will ensure the skills from the 3 most relevant areas for science: Communication & Language, Physical Development and Understanding the World support the teaching and learning of science.
- We will try, where possible and relevant, to link learning of Scientific topics with the Pathways for Learning Scheme for EYFS ensuring a seamless approach to teaching of science rather than as a standalone concept. Children will be given opportunities to engage in practical activities to support their learning of scientific concepts e.g. planting seeds and caring for a growing plant

Impact

Assessment of knowledge in both Working Scientifically and Science Content is done using a variety of informal assessment methods within the classroom environment, which allow the children to apply their understanding of the content as they progress through the topic. At the end of each topic, children will revisit their 'what I already know' activity that they completed at the beginning of the topic and add to this with all of their new knowledge from throughout the topic. The teacher can then use these going forwards to ensure build-up of sequential and progressive knowledge and skills and avoid gaps.

Where this is not practical – for example, for some learners with high levels of SEND – an adapted curriculum will be adopted to be ambitious yet accessible and inclusive for all learners.

Monitoring of Science will involve learning walks, pupil voice and scrutiny of work in both Working Scientifically and Science Content and within each year group. Via monitoring, the subject leader will use assessment information to check pupils' knowledge, skills and understanding is in their long-term memory. Any gaps in learning or children who are not meeting age related expectations can be identified and supported appropriately.