



Science

How is the Science curriculum adapted for Lammack children?

Science at Lammack is approached in a very practical, investigative manner. We aim to provide our pupils with exciting, interactive and inclusive opportunities that encourage all children to become independent and enthusiastic learners. Children are encouraged to work collaboratively to ask and answer questions about the science topic and we love to provide them with opportunities to plan and take part in investigations.

How this subject is taught

Science is approached in a very practical, investigative manner. Children learn the skills of all areas of science before applying their scientific knowledge to a wide variety of practical investigations. Science is approached through a variety of areas set out in the National Curriculum; biology, chemistry and physics. All of these areas are planned to include working scientifically. At Lammack, we aim to provide our pupils with exciting, interactive and inclusive opportunities that encourage all children to become independent and enthusiastic learners.

A main focus of learning at Lammack is vocabulary and oracy. Teachers work hard to explicitly teach the vocabulary associated with all areas of the science curriculum. Children are encouraged to ask lots of questions and plan investigations to help them find the answers to these.

Foundation Stage

In the Foundation Stage, science is taught through one of the seven areas of learning; Understanding the World. Teachers provide a wealth of opportunities to try out and investigate questions and situations. A language rich environment provides a platform for questioning and discussion around the world, people and communities and technology. Practical activities are planned to encourage the children to use their language to share their observations, notice patterns and discuss changes in a variety of contexts. Continuous provision is used, both inside and outside of the classroom, to provide the children with the chance to explore and develop their knowledge and curiosity with a science focus.

Key Stage One

Science is taught for a minimum of one hour per week. Through the focus of biology and chemistry children should learn to:

- use simple scientific language to suggest answers to questions;
- ask simple questions and begin to answer them;
- use basic equipment to gather data;
- perform simple tests and make observations;
- talk about the results of their observations.

Key Stage Two

Science is taught for 1.5 hours per week. In lower Key Stage Two, teachers plan cross curricular lessons based on the exciting and innovative topics taught each term. A rolling programme is taught to ensure complete and comprehensive coverage of all National Curriculum programmes of study. The objectives of study have been divided into two different programmes which are taught over two consecutive years.

Through the focus of biology, chemistry and physics children should learn to:

- use appropriate scientific language to discuss, explain and present ideas;
- ask and answer relevant questions;
- use standard measurements to support investigations using a range of equipment;
- set up, make predictions, carry out and report on a wide variety of scientific enquiries;
- gather and present data to enable scientific questions to be answered;
- draw simple conclusions and develop improvements to investigations.

In upper Key Stage Two children are taught in line with the National Curriculum programmes of study. Teachers plan cross-curricular lessons based on the exciting and innovative topics taught each term. Through the focus of biology, chemistry and physics children should learn to:

- use appropriate scientific language to discuss, explain and present ideas to support and refute ideas;
- ask and answer relevant questions controlling variables where necessary;
- use accuracy and precision, when supporting investigations, with the use of a range of measurements;
- set up, make predictions, carry out and report on a wide variety of scientific enquiries considering anomalies and inaccuracies;
- gather and present data in a wide variety of ways to enable scientific questions to be answered;
- draw simple conclusions and develop improvements to investigations considering anomalies and inaccuracies.

How this subject is assessed

In science, time is spent assessing the children's existing knowledge before planning and delivering appropriately targeted science lessons. Teachers continually assess children's needs and developments and alter their planning and teaching accordingly. A range of assessment styles are encouraged, such as peer assessment, self-assessment and verbal feedback.

All lessons have clear learning objectives and success criteria to ensure the children understand what they are expected to learn and how they can continue to progress. Teachers use 'Tickled Pink' and 'Green for Growth' to enable children to understand their successes and next steps for learning in science.

Teacher assessment is used to assess progress against the appropriate year group expectations and this in turn is reported to parents in the end of year report.