

Intent Statement Little Munden - Science

Intent:

Here at Little Munden School, we strongly believe that high quality science education and teaching offers the foundations for understanding the world around us. Science is ever changing and is fundamental for a prosperous future, which we strive to facilitate and stress the importance of when delivering the teaching of the processes, methods and knowledge of this vital area. Science at Little Munden focusses upon developing students thinking and scientific practices that enable them to make sense of the world in which they live. We achieve this by ensuring that students are exposed to quality first teaching, investigating scientific phenomena and real-world problems and by applying scientific skills. A key element to our teaching is the building of fundamental scientific knowledge and concepts that can be added to and developed each year to allow our students to advance their rational thinking skills in addition to developing a sense of curiosity and excitement about science. Students are encouraged to understand how science can be used to explain what is occurring, predict how things will behave, as well as analyse the causes they observe or record. Students at Little Munden are constantly exposed and immersed in key scientific vocabulary, increasing student's knowledge and understanding of not only the specific matter they are currently studying, but of the world they live in. Fundamentally, science in our school is about developing our students' ideas and scientific thinking by allowing them to investigate and study the environment and world around them, regardless of their gender, ethnicity or ability which we achieve with a balanced and broad science programme of study.

Implementation:

At Little Munden School, staff have worked collaboratively to develop a clear and comprehensive scheme of work in line with the National Curriculum. Science is taught consistently in standalone lessons, once a week for up to two hours, but is also taught throughout other areas of the curriculum where appropriate eg through guided reading. Science teaching at Little Munden School; involves adapting and extending the curriculum to match all pupils' needs. Teachers may adapt planned units to suit their children's interests, current events, use of support staff and resources available.

Teaching and learning shows progression across the key stages within the strands of science and revisits key concepts. The children can build on prior knowledge and link ideas together enabling them to question and become enquiry-based learners. In years 1-6 a two-year rolling programme is

in place to ensure balanced coverage of subject knowledge and the key skills of scientific enquiry. In Foundation stage science is taught through the Understanding the World area of learning. Where appropriate, at least one investigation is completed during each unit. Children have opportunities within science lessons to access resources to acquire learning through science equipment, digital technology, practical experiences and images. The children have access to key vocabulary and meanings in order to understand and readily apply to their verbal and written communication.

We will organise a Science Week once a year and arrange trips or visits from experts/outside agencies where relevant.

We aim to ensure all students are exposed to rich learning experiences that:

- Make links between science and other subjects.
- Prepare our students for life in an increasingly scientific and technological world.
- Build on our students' natural curiosity and develop a scientific approach to solving problems.
- Help our students acquire a growing understanding of the nature, processes and methods of scientific ideas.
- Help develop and extend our students' scientific concept of the world they live in.
- Develop the use of scientific language and vocabulary, recording and techniques.
- Develop in pupils a general sense of enquiry, which encourages them to question and make suggestions.
- Encourages open-mindedness, self-assessment, resilience and developing the key scientific skills including: observing, measuring, predicting, hypothesising, experimenting, communicating, interpreting, explaining and evaluating.

Impact:

The impact and measure of this is to ensure students not only acquire the appropriate age-related knowledge linked to the science curriculum, but also skills which equip them to progress from their starting points, and within their everyday lives. Our aim for science is to increase the skills needed to navigate an ever-changing world of science and technology by immersing our students with scientific enquiry skills, key scientific knowledge and investigative skills. We aim to create a culture of high scientific aspirations, which will allow our students a platform to develop their scientific learning and careers, and to articulate their understanding of key scientific concepts.

Impact is measured using a variety of methods:

- Assessment for learning is continuous throughout the planning, teaching and learning cycle
- Observing children at work individually, in pairs, in a group and in classes both indoor and outdoor
- Questioning, talking and listening to children
- Considering work/materials/investigations produced by children, together with discussion about the work and outcomes they produce
- End of unit assessment tests or assessments when appropriate, where results are tracked.
- Progress in Working Scientifically is monitored across whole units.
- Foundation Stage children are assessed throughout the year through observation within the broad ages and stages of their development.