Curriculum statement
Science

Intent

At Claremont Primary School, our aim is to provide an engaging and motivating science curriculum which helps pupils to develop their knowledge, skills and understanding through specific areas of biology, chemistry and physics. Our interactive curriculum allows all pupils to take part in at least one investigation per unit of work, often child led. This gives them a sense of responsibility and ownership of their work whilst using their enquiry skills. A high proportion of our children have English as an Additional Language (EAL) so we ensure that teachers and TA's incorporate key vocabulary and clearly model skills using visual aids, ICT and cues to enhance the learning. We ensure our curriculum includes enrichment experiences such as visiting museums, and working with in school. All children are given the opportunity to access the curriculum at their level and are provided with the resources required to enhance their understanding.

We believe our science curriculum allows pupils to work curiously and collaboratively. By engaging and exploring with the world around them, they are able to make meaningful connections with their own prior knowledge and this enables children to make links to their own lives and other curriculum subjects providing opportunity for oral discussions.

We aim for pupils to develop their skills in working scientifically by:

- asking questions
- observing and using equipment to measure
- planning for and setting up enquiries
- using equipment
- recording and presenting data
- answering their questions
- evaluating
- further questioning
- communicating and presenting information.

Implementation

Pupils in the Early Years Foundation Stage begin their journey in science through their learning of Understanding the World. They are encouraged to explore the world through observations, questioning and investigations. The National Curriculum provides clear progression through age-related objectives from Key Stage 1 through to the end of Key Stage 2. Where possible, cross curricular links are made with both core and foundation subjects.

All staff use knowledge organisers at the start of each unit. Knowledge organisers are used to summarise the unit's learning by focusing on key vocabulary, information and scientists. Pupils have a copy in their exercise book with relevant information and are encouraged to refer to them during lessons, enabling pupils to work more independently. Staff use knowledge organisers to ensure key facts, vocabulary and people have been planned into each unit of work.

We encourage our pupils to perform child led investigations which allow them to develop their science skills through asking questions at the start of each unit of work. Pupils have ownership of their learning by generating an agreed question at the start of a new topic, they will then develop the investigation by carrying it out and analysing the results. As a result of child led investigations, pupils engage collaboratively as they progress through KS1 to KS2 and become skilled and confident scientists.

The curriculum is enriched by organising visitors to school, visits to farms and museums as well as connections with local secondary schools and universities.

Every year, we celebrate International Day of Women and Girls in Science where each year group learns about a female scientist. We also take part in British Science Week, starting with inspiring, interactive assemblies to hook pupils into an exciting week of investigating. Each year group has the opportunity to work with a real scientist and by the end of the week they enjoy sharing their learning with other year groups.

The school also takes part in a local event each year, where pupils focus on a science project and consequently use their communication and listening skills to share their learning with other schools.

Our curriculum provides opportunities allowing pupils to recognise how science is linked to the world around them and broadens their understanding of what science is.

Impact

We believe that our science curriculum is key for our pupils to become curious, enthusiastic and motivated learners about the world they are growing up in.

Both results from assessments and teacher judgement help to identify where pupils are in their learning.

Pupils are given verbal feedback during lessons as well as marking, through written feedback in their exercise books. Both strategies help to address any misconceptions and provide pupils with a clearer understanding of their learning.

A new assessment system in science has been introduced in Autumn 2020, which will help teachers to recognise where pupils are in regards to their age-related expectations. This is used during a unit of work so that it provides teachers with information to help identify gaps in knowledge and adapt planning for the rest of the unit.

It is important to us that pupils and teachers take part in pupil voice surveys and teacher audits. Consequently, we are able to recognise and understand what the pupils and teachers think is effective science in our school. As a result, teachers tailor learning to the needs of our pupils.

The planning and teaching of science always has a clear focus of our school's Key Principles in Science.

As a result of these strategies:

- Pupils are engaged, inquisitive and passionate about their science learning.
- Pupils are able to talk about their learning using scientific vocabulary.
- Pupils can connect their existing knowledge with what they are learning and real-life contexts.
- Pupils are confident using a variety of science enquiry types to plan and carry out investigations.
- Pupils apply their knowledge to other areas of the curriculum.