Science

Curriculum Statement

Intent

At Loxdale Primary School we aim to provide children with a high-quality science education which provides the foundations for understanding the wider world. We develop children's scientific knowledge through the three key areas biology, chemistry and physics. Within our curriculum we support children to develop their understanding of the world around them and prepare them for the uses of science in today's world and in the future. We encourage children's inquisitive nature about the world around them and we promote respect for living things and the environment.

At Loxdale Primary School our science curriculum, which is in line with the National Curriculum gives children the opportunity to:

• Develop scientific knowledge and conceptual understanding through the specific areas of biology, chemistry and physics

• Develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them

• Equip children with the scientific knowledge required to understand the uses and implications of science, today and for the future

• Encourage children to develop their science enquiry skills to embed understanding.

• Understand the importance of looking after equipment during scientific enquiry.

• Embed a passion for science enquiry and discovery.

Within the teaching of science at our school we have worked hard to create an engaging curriculum where cross curricular links are made, where appropriate. This allows children to gain a deeper understanding of the topic and helps to promote a love of science within different subject areas. Throughout science children are given choice, challenge and opportunities to work collaboratively with their peers which encourages them to share their own ideas, views and opinions. This enables children to build their confidence and self-esteem which will prepare them for the next stage of their learning.

Implementation

Within Key Stage One and Key Stage Two at Loxdale Primary School, children have weekly science lessons that take place during afternoon learning time. This consistency allows children to have a deeper understanding about prior knowledge and allows them to apply their skills independently. Within Early Years science is taught through 'Understanding the World' where children are be given lots of practically experiences to enable them to develop their scientific skills. Children will build on their skills throughout their time at Loxdale through consistent, high quality science lessons.

Throughout Key Stage One and Key Stage Two science is taught within specific units which is in line with the National Curriculum. Where appropriate in science cross curriculum links are made depending learning on the year groups topics. At the beginning of each science topic children are given the opportunity to voice what they would like to learn, which gives them ownership of their own learning and encourages children to develop their scientific enquiry.

Throughout science lessons children will refer to themselves as 'scientists' which helps to promote enthusiasm within the subject. Working collaboratively within the subject is really important to us and during each lesson children will have the opportunity to work collaboratively with a partner or with a small group. During lessons children will make predictions, carry out investigations and then feedback about what they have learnt. Scientific vocabulary is modelled throughout the week and children refer back to this during lessons. 'Science words of the week' have recently been introduced and will enable them to use the vocabulary during lessons and independent learning.

Exciting scientific events are held throughout the year at Loxdale Primary School to promote the love of the subject. Science week is celebrated and incorporated through a cross circular approach to broaden pupils provision. It allows children to experience science within real life situations which provides children with ambition and curiosity. Children are given the opportunity to attend a science afterschool club and within the club specific children have been given the role of a science ambassador. These children will help to promote science within school. They will also be involved in sharing their own views and opinions which gives them a voice within the science curriculum.

In terms of assessment teachers monitor children's progress each week using the specific science targets that have been provided by Wolverhampton Authority. At the end of each topic children are formally assessed using assessments, that are produced by class teachers, which is used to inform planning and track progress. Formative assessment is used during and at the end of each lesson to ensure pupils have a clear understanding of what has been taught. It is the science coordinators responsibility to monitor the subject, set out termly medium term plans and the standards in the front of each science book. During the year regular training or update sessions are held to

inform colleagues of new information and this ensures consistency throughout the subject.

Impact

Our school science curriculum is carefully planned and implemented within the classroom to suit the needs of each individual child within school. This helps to implement the keep up not catch up approach and ensures all pupils make progress throughout the lesson. At the end of each topic children take part in an assessment, which allows teachers to track the progress of all learners. Our skills progression allows children to build on skills they have previously been taught and provides differentiation for each year group. Loxdale's science curriculum incorporates fun and interesting activities that help to inspire and motive children to gain a greater understanding of the world around them.

Our main aims that we want to achieve are to prepare children with a wide range of skills linked to scientific knowledge and understanding as well as scientist and investigation skills. We also strive to ensure that children have and use an extended scientific vocabulary that expands throughout their primary school journey. We feel that it is vital for all children to have high aspirations which will see them further their study and lead to a successful adult life.