Statement of Intent for Science

Our School Vision

We are a warm, welcoming and inclusive school rooted in our rural community. Like the mustard seed we grew from tiny beginnings and our branches are now spread wide –providing support and taking our values beyond the school gates. All those in our community feel safe and nurtured - able to flourish and grow academically, spiritually, emotionally and physically to achieve their full God-given potential.

'Nurtured We Flourish'

Our Christian Values:

- Love
- Forgiveness
- Fellowship

The story which helps to explain our values in action is the parable of the mustard seed – Matthew 13:31-32.

Statement of Intent:

At Harrietsham Church of England Primary School, It is our intention in Science to develop all young people a lifelong curiosity and interest in the sciences. When planning for the science curriculum, we intend for children to have the opportunity, wherever possible, to learn through varied systematic investigations, leading to them being equipped for life to ask and answer scientific questions about the world around them. As children progress through the year groups, they build on their skills in working scientifically, as well as on their scientific knowledge. They develop greater independence in planning and carrying out fair and comparative tests to answer a range of scientific questions. For each topic we use knowledge organisers which are used to help reinforce the key knowledge for each unit as set out in the science national curriculum. The knowledge organisers help children to consolidate and retain the science knowledge they have learnt and also reinforce key scientific vocabulary from each unit. The Plymouth Science Scheme of work ensures that children have a varied, progressive and well-mapped-out science curriculum that provides the opportunity for progression across the full breadth of the science national curriculum for Early Years, KS1 and KS2.

Implementation

The acquisition of key scientific knowledge is an integral part of our science lessons. The progression of skills for working scientifically are developed through the year groups and scientific enquiry skills are of key importance within lessons. Scientific knowledge and enquiry skills are developed with increasing depth and challenge as children move through the year groups. They complete investigations and hands-on activities while gaining the scientific knowledge for each unit. Children are encouraged to develop oracy by asking questions, discussing their learning and concepts as well as acting out whereby avoiding misconceptions. Children need to be shown that there are a variety of types of scientific investigations and be taught these across their time in school:

- Fair testing
- Surveys and patterns in data
- Classification
- Exploring and observing over time
- Problem solving
- Investigating a 'model'
- Secondary research

They will develop an understanding of what the differences are between these types of investigations, the pros and cons of each, as well as when it is best to select a particular approach. As children move through KS2 they may then be given opportunity to choose their own approach to learning and how best to investigate.

Impact

Each term teachers assess children's levels of understanding as well as at various points in each lesson. All children should have an equitable opportunity to show their level of understanding, regardless of literacy ability. Any children with specific SEN requirements need to be planned for, so they also have the same opportunities to learn and show understanding. Provision for extension

within the lesson or between different ability groups should be provided for where possible, to ensure all children have the opportunity to show a developing understanding with the lesson. Each class will have a display to support new scientific learning and should include:

• Relevant diagrams

• Supporting imagery

• Useful scientific vocabulary

• Definitions

• Real-life examples of the application of the learning

• Relevant examples of diverse scientists/occupations in this field, particularly from minority groups/female representatives.

The subject coordinator will conduct regular monitoring to check coverage and progression, giving timely and focused feedback to all staff.

By the time children leave Harrietsham C of E Primary school they are equipped and ready for an effective transition from KS2 science to KS3 science. With our nurturing approach we aim to give the children the social and emotional skills to do well in science and to develop their resilience through feeling valued and appreciatated.