

# LONG SUTTON C OF E (VA) PRIMARY SCHOOL CURRICULUM STATEMENT

## Science

'Learn to love and love to learn'

**Our school is an integral part of our village and everyone within this community is valued and nurtured as part of our school family and God's family. Christian teaching and values are at the heart of all we do, to ensure that we develop well-motivated, independent, happy children who aspire to achieve their best in all they do, respecting and valuing themselves and others.**

'The important thing is to not stop questioning.' Albert Einstein

**The school's senior leadership team will:**

- Lead the school staff to develop a clear overarching curriculum intent which drives the ongoing development and improvement of all the curriculum subjects
- Ensure that the curriculum leaders have appropriate time to develop their specific curriculum intent through training, research and development.
- Provide sufficient funding, resources and training to ensure that implementation is high quality.
- Monitor the impact of teaching on the learning and ensure curriculum leader has support to analysis data, monitor learning and talk to pupils to further develop and maintain high quality teaching across the school.

<u>Intent</u>	<u>Implementation</u>	<u>Impact</u>
<b>What will take place before teaching in the classroom?</b>	<b>What will this look like in the classroom?</b>	<b>How will this be measured?</b>
<p><b>The curriculum leader will:</b></p> <ul style="list-style-type: none"> <li>• Understand and articulate the expectations of the curriculum (including statutory elements of the National Curriculum) to support teaching and learning.</li> <li>• Create a 2-year rolling long term plan based on the Kent plans for each class.</li> <li>• Ensure an appropriate progression of science enquiry skills knowledge is in place which supports pupils knowing more and remembering more over time.</li> <li>• Ensure a vocabulary progression is in place to support key vocabulary used in lessons.</li> <li>• Ensure pupils are supported to achieve the best they can and challenged to extend their learning.</li> <li>• Ensure an appropriate progression in subject specific vocabulary is in place for each phase of learning</li> <li>• Ensure resources needed are available and in plentiful supply where possible.</li> <li>• Keep up to date with current research on the teaching of science.</li> <li>• Inform staff of new ideas and methods of teaching.</li> <li>• Regularly monitor Science learning by carrying out walkabouts , book scrutiny's and child interviews.</li> </ul>	<p><b>Our teacher will:</b></p> <ul style="list-style-type: none"> <li>• Elicit prior knowledge and understanding by using a formative assessment task.</li> <li>• Plan for misconceptions</li> <li>• Develop a sequence of learning from this formative task</li> <li>• Be explicit with areas of safety</li> <li>• Teach key vocabulary</li> <li>• Ensure investigations are carried out in a practical way, by preparing appropriate resources and groupings</li> <li>• Ensure every child can actively participate in pairs, on their own or in groups</li> <li>• Develop the analysis of data</li> <li>• Keep a class floor book to record the excellent progression, breadth and learning taking place.</li> <li>• Support children with SEN using the appropriate strategies.</li> <li>• Regularly develop discussions about the relevance of Science in real life, including named Scientists.</li> <li>• Show the progression of knowledge and skills by using an end -of unit assessment task.</li> </ul>	<p><b>Pupil voice will show:</b></p> <ul style="list-style-type: none"> <li>• Children have a love of science</li> <li>• Enthusiasm, motivation and confidence when talking about aspects and experiences of science</li> <li>• A secure understanding of key basic concepts</li> <li>• Use age-appropriate vocabulary when talking about their knowledge and skills in science</li> <li>• Children able to predict</li> <li>• Children able to pose relevant questions</li> <li>• Children able to show increasing independence and confidence when participating in practical activities</li> <li>• Improved observation skills</li> <li>• Developing understanding of the use of data and results.</li> <li>• Pride in their class floor book and own book</li> <li>• Children able to apply problem solving skills across the curriculum</li> <li>• Increased knowledge and understanding shown in post-assessment tasks (concept maps, TAPS assessment)</li> </ul>

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### The class teacher will, with support from the curriculum leader:

- Create regular lessons from the long-term plan which ensures appropriate coverage of knowledge, skills and vocabulary from the progression grid.
- Personally pursue support for any particular subject knowledge and skills gaps prior to teaching.
- Ensure that resources are appropriate, of high enough quality and are plentiful so all pupils have the correct tools and materials.
- Prepare knowledge of known scientists, both old and new within their area of study
- Aim to dispel biased attitudes towards science and increase children's science capital (experience of science) in their teaching.

### Our children will be:

- Engaged with their learning because it is accessible to all and challenging
- Resilient learners who will happily persevere
- Able to work together effectively, collaborating
- Independent predictors
- Able to reflect on their learning through discussion, questioning and making links with their knowledge.
- Develop their questioning skills over time
- Develop their ability to explain results and create conclusions in different ways
- Able to explain to adults and peers how they have made progress in the subject
- Thinking about the work of known real life scientists in the past and the present, creating the idea of their possible future

### Work, books, floor books and displays around the school will show:

- Children demonstrating their knowledge and understanding in oral or written form.
- Formative assessment of previous lesson knowledge in form of retrieval quizzes or questioning from teacher.
- Photographic evidence of children's practical skills
- Key Vocabulary
- Learning objectives taught
- A range of data and results in the form of tables, graphs and scientific diagrams
- Progression of skills
- The opportunities the pupils have had to practically investigate.
- Questions asked by the pupils throughout the sequence
- The developing understanding of the science
- The process of carrying out an investigation from a question (including prediction, method, results and conclusions)

### Progress will be shown through:

- Use of floor books as evidence towards formative and summative assessment
- Teacher Assessment at the end of each science topic, using a Focused Assessment Plan (PSTT) or one created by the teacher
- Informal walkabouts by Science coordinator and other staff
- Lesson observations by senior management

### The curriculum leader will:

- Celebrate the success of pupils through discussions, viewing work and if appropriate, displays.
- Monitor the standards in the subject to ensure outcomes are at expected levels through pupil and teacher discussions, looking at other evidence available
- Provide ongoing support and ideas where necessary
- Produce a yearly report to the Governing Body