St Mary's Church of England (A) Primary School.

Living, loving, learning in God's care.

Our School Vision and Mission

Vision Statement

Our St Mary's church school family lives by the life and teachings of Jesus. We provide a safe and loving environment, whilst aspiring for all children to achieve their full potential within God's care.

Mission Statement

O Lord, teach me how you want me to live! Psalm 86:11
This scripture verse reminds us that our Christian values underpin how we live and how we learn, through a unique and deep curriculum, grounded in God's love.

The school will put safety and wellbeing at the centre of everything we do.
Through our vision, values and motto our mission is to:

- **Develop the children academically, creatively and spiritually through a high quality, stimulating and memorable curriculum, that celebrates difference and values everyone**
- **Encourage each child's knowledge and skills, through experiences to reach their full potential and to instil a life-long love of learning**
- **Share our school with the church and community to further develop religious literacy**
- **Foster a deeper understanding of other faiths and cultures and encourage attitudes of tolerance, democracy and advocacy**

Statement of Intent for science

Intent

At St Mary's primary school, we believe that a high-quality science education provides the foundations for understanding the world through biology, chemistry and physics. Science has changed our lives and is vital to the world's future. We aim to encourage a love of learning through curiosity and questioning. Our aim as a school is for children to receive a science curriculum, which enables them to confidently explore and discover what is around them, so that they have a deeper

understanding of the world we live in. The children should be able to feel confident enough to ask challenging questions that question the world we live in.

All children have the opportunity to carry out experiments and have the opportunity to use scientific equipment to help support their knowledge and understanding. This is with the intention that this will help develop their scientific enquiry and investigative skills. Here at St. Mary's, we want the children to leave our school confident, curious and enthusiastic scientists, that have had the opportunity to make good progression across the national curriculum.

In line with the national curriculum KS1 pupils at St Mary's will aim to be:

- **asking simple questions and recognising that they can be answered in different ways**
- **observing closely, using simple equipment**
- **performing simple tests**
- **identifying and classifying**
- **using their observations and ideas to suggest answers to questions**
- **gathering and recording data to help in answering questions**

During years 3 and 4, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:

- **asking relevant questions and using different types of scientific enquiries to answer the**
- **setting up simple practical enquiries, comparative and fair tests**
- **making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers**
- **gathering, recording, classifying and presenting data in a variety of ways to help in answering questions**
- **recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables**
- **reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions**
- **using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions**
- **identifying differences, similarities or changes related to simple scientific ideas and processes**
- **using straightforward scientific evidence to answer questions or to support their findings.**

During years 5 and 6, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:

- **planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary**
- **taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate**
- **recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs**
- **using test results to make predictions to set up further comparative and fair tests**
- **reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations**
- **identifying scientific evidence that has been used to support or refute ideas or arguments**

<u>Implementation</u>

At St. Mary's science topics are taught within each year group on a 2-year cycle in accordance with the National Curriculum. Science is timetabled Friday morning up until 10:30am. During these lessons, teachers create a positive attitude to science learning within their classrooms and reinforce an expectation that all children are capable of achieving high standards in science.

- **Children are required to complete a mind map at the beginning of each science lesson, answering questions about the previous session. This is so the children produce a sheet on completion of a topic with a wide variety of key knowledge. It also gives the teachers an opportunity to assess a child's understanding from the previous lesson.**
- **Children explore, question, predict, plan, carry out investigations and observations as well as conclude their findings.**
- **Children present their findings and learning using science specific language, observations and diagrams.**
- **In order to support children in their ability to 'know more and remember more' there are regular opportunities to review the learning taken place in previous topics. These are often carried out at the start of lessons.**

Impact

To ensure children 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. We want to inspire our children, so they understand they have the confidence and capability to have an impact on the world. A real enjoyment for science is embedded throughout the school which is consistent in pupil voice feedback questionnaires.