

# Science

## **What we aim for children to achieve through our Science curriculum:**

At Great Tew Primary School, our intention is to give every child a comprehensive and balanced 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.

Our aim is to create stimulating and challenging experiences to help every child secure and extend their scientific knowledge and vocabulary, as well as promoting a love and thirst for learning.

We have created a coherently planned and sequenced curriculum using the Cornerstones Maestro Curriculum, which has been carefully designed and developed with the needs of every child at the centre of what we do.

## **How we achieve our aims:**

Science topics are taught within each class in accordance with the National Curriculum.

- To support teaching, teachers access a range of resources from Cornerstones Maestro which provides a solid foundation for planning our two-year rolling programme for science.
- Topics are taught in blocks to allow children to focus on developing their knowledge and skills, studying each topic in depth.
- At the start of each topic children will review previous learning and will have the opportunity to share what they already know about a current topic.
- Children are given a knowledge organiser at the start of each topic which details key Science Curriculum Statement information and key vocabulary.

- Each year group will build upon the learning from prior year groups therefore developing a depth of understanding and progression of skills.
- Children explore, question, predict, plan, carry out investigations and observations as well as conclude their findings.

## **Investigative Science is Taught Using the Following Techniques:**

### **EYFS**

Science in Reception is covered in the 'Understanding the World' area of the EYFS Curriculum. It is introduced indirectly through activities that encourage every child to explore, problem solve, observe, predict, think, make decisions and talk about the world around them.

### **Key Stage One**

During years 1 and 2, our children are taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:

- 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

### **Lower Key Stage Two**

During years 3 and 4, our children are 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 them
- 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.

### **Upper Key Stage Two**

During years 5 and 6, our children are 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