



## Science at Newbold School

### **Intent**

To provide opportunities for all children at Newbold to experience science through rich, purposeful learning to help support them in understanding the world they live in and how they can make their own mark. We aim to use outdoor learning wherever possible to allow children to contextualise their learning and engage with the environment around us. Our science curriculum is concerned with increasing pupils' knowledge of our world and with developing skills associated with science as a process of inquiry. At Newbold we want to develop the natural curiosity of each child, and encourage them to have respect for all living organisms by instilling in pupils the importance of caring for the natural environment.

We plan for children to experience the awe of science and feel confident in leading their own investigations and discoveries and use scientific vocabulary when explaining predictions and conclusions. Science talk is vital and our classrooms should always be a safe space for children to share their ideas freely.

Our curriculum and planning aims to provide well-built opportunities for cross-curricular learning, such as data recording and graphs linked to mathematics and many writing opportunities, such as reasoning based tasks and written investigations.

### **Science Lessons**

Using the requirements of the Science National Curriculum as our guide, our Science lessons and Forest School sessions offer opportunities for children to:

- Develop an enthusiasm and enjoyment of scientific learning and discovery.
- Formulate their own questions about the natural world.
- Foster the confidence to 'be wrong' when it comes to making predictions.
- Promote the importance of teamwork in scientific experimentation.
- Practically investigate their questions using various methods of enquiry.
- Gain competence in the science skills of planning scientific investigations, gathering and analysing data and critical evaluation of investigations.
- Use a range of methods and resources to gather data from investigations and secondary sources including I.C.T., drawings, diagrams, videos and photographs.
- Present data in a variety of methods, including tables and graphs.
- Use our local environment as much as possible to immerse the children in the nature that surrounds Newbold.

## **Implementation**

Structured science lessons are taught weekly across KS1 and KS2. EYFS have regular planned opportunities to explore science as part of Understanding the World. KS1 and KS2 teachers mainly use the 'Plymouth Science Scheme' but may adapt this to suit the needs of the class and opportunities our local environment provides. The science topics taught may be linked to other subject topics covered in the curriculum, or may be taught due to seasonal opportunities that will support the learning further. Working scientifically is a key focus at Newbold as these skills are necessary to become a true scientist, and our planning must include a particular inquiry focus for every lesson. Both scientific skills and knowledge are broken down into each year group to show expectations and progress. Teachers are able to plan lessons knowing what has been taught previously in a different year group, and what will come next.

Our Forest School develops children's love for being in their local environment, as well as creating many science links and endless opportunities to be investigated. It can support current science topics as well as acting as continuous provision throughout the year.

School trips are regularly planned to support the learning in science to encourage deeper understanding and further opportunities to apply their skills of working scientifically.

Newbold is a green flag awarded eco school and through eco reps and clubs, environmental awareness and action is able to take place through child-led initiatives.

## **Impact**

Children enjoy science and are curious about the world around them. The school ethos, planning and wide range of opportunities allows for science to be at the forefront of education at Newbold School. Working scientifically skills are developed and built upon, as well as knowledge and application of this knowledge in future learning.

We measure the impact of our science curriculum through the following methods:

- Concept maps to show progress in understanding
- Images and teacher recorded information about practical learning
- Pupils' written work and use of scientific vocabulary
- Pupils' use of science talk
- Tracking children's progress (teacher assessment)
- Dialogue between teachers regarding the teaching of science
- Assessment tool to check children are working at expected or higher levels

The children's engagement and love for nature shows that our school ethos and intent has made a significant impact on both the children and future of our world.