Learning at River View

Science

Science teaching at River View Primary School gives all children a strong understanding of the world around them whilst acquiring specific skills and knowledge to help them to think scientifically, to gain an understanding of scientific processes and also an understanding of the uses and implications of Science, today and for the future. We develop children’s natural excitement and inspire them to pursue scientific enquiry now and in later life. At River View we use our local resources as real life ‘textbooks’ ready for children to step into and maximise the learning experiences that are right on our doorstep, developing their understanding of our local area and how it has been shaped by nature. Scientific enquiry skills are embedded in each topic the children study and these topics are revisited and developed throughout their time at school. Topics, such as Plants, are taught in Key Stage One and studied again in further detail throughout Key Stage Two. This model allows children to build upon their prior knowledge and increases their enthusiasm for the topics whilst embedding this procedural knowledge into the long-term memory.

All children are encouraged to develop and use a range of skills including observations, planning and investigations, as well as being encouraged to question the world around them and become independent learners in exploring possible answers for their scientific based questions. Specialist vocabulary for topics is taught and built up, and effective questioning to communicate ideas is planned for. Concepts taught are reinforced by focusing on the key features of scientific enquiry, so that pupils learn to use a variety of approaches to answer relevant scientific questions.

The National Curriculum requirements are taught and assessed in each year group. The Science progression documents outline previous and subsequent year groups’ content in order to link learning and build on previous knowledge; this ensures that the cycle of lessons for each topic carefully plans for progression and depth. For each topic, investigations are planned and knowledge organisers outline knowledge (including vocabulary) all children must master. Knowledge organisers are provided at the beginning of each topic. Science is taught discreetly once per week. Where there is a natural link between a Science topic and other curriculum areas, teachers link concepts.

In the Early Years Foundation Stage children learn Science through ‘Understanding of the World’. Children are supported to observe how and why things change in the world around them. They do this by investigating the environment during each season and comparing differences between them. They learn how to grow plants and that there are some plants we can eat. They explore resources every day through our play and compare similarities and differences between the materials they are made from, how they look, feel, move and smell. They also observe how humans and animals change and grow over time through their life cycles. Investigating all of these areas and experiencing them first hand through play, gives real meaning to scientific vocabulary and concepts that children learn more about in Year one.

A Science fair is planned each year which enhances the learning experience and provides children with the opportunity to present and showcase learning and ideas.

Our Science Curriculum is high quality, well thought out and is planned to demonstrate progression. If children are keeping up with the curriculum, they are deemed to be making good or better progress. In addition, we measure the impact of our curriculum through the following methods:

* Low stake quizzes
* Responses to questions
* Discussions with children
* Oral responses and observations by the teacher within class
* Investigative and experimenting skills
* The development of curiosity and excitement for the world around them
* Children can make connections throughout the years e.g. fossils in year 3 linked to evolution in year 6
* Children can confidently report and explain outcomes both written and orally
* Children can record findings using a range of graphs and tables
* Children are prepared for Science in the next stage of their education and able to understand the world around them