

Intent

At Poulner Junior School, our aim in science is that all pupils develop in to children who have enquiring minds. We endeavour to ignite children's curiosity by hands on learning which in turn enables them to raise and investigate their own questions, so they work effectively as scientists. The 'hands on learning' is an integral part of our science lessons as it affords the children the opportunity to develop the key skills required by scientists, such as teamwork and creativity. It also allows SEND children to access the scientific content as they observe what is happening. Once the children have completed their science journey with us they will be equipped with specific skills and knowledge to help them to think scientifically, to have gained a good understanding of scientific process in addition to understanding the use and implications of science today.

Implementation

The national curriculum is followed allowing the progression of skills to develop as children move through the school.

Each unit begins with a 'hook' lesson, which provides children with a carousel of learning designed to engage the children, build questions based on observation and ignite their curiosity. Within the carousel of activities, there is an AfL task which allows teachers to understand the children's starting points within each unit. This is revisited again at the end of the unit and is used as assessment by the class teacher.

The science coordinator plans each unit. This allows the provision of building on previous knowledge and scientific skills year on year. Units are developed ensuring that the seven enquiry skills are embedded into lessons so that as the children's knowledge and understanding of these enquires increases, they are more independent in selecting the resources needed, collating and recording data and constructing conclusions based on their own observations and real evidence.

The planning is designed to ensure that problem solving is at the heart of the lessons. This allows children to theorise, predict and apply knowledge and thus to find out answers for themselves. The lessons have been created to be engaging and accessible by pupils of all abilities as many of the lessons are designed to be carried out in mixed ability groupings.

As part of the planning, the science coordinator compiles the key learning for the unit. This is then presented as knowledge organisers. The knowledge organisers summarise the key skills that the children need to be proficient at and it also incorporates key vocabulary. Parents are provided with these so that they are aware of what the key learning and

vocabulary is so that they can support their children where necessary.

Science week is celebrated in school each year. This allows the pupils to come off timetable, to provide broader provision and the acquisition and application of knowledge and skills.

Impact

Children have developed a love of science as a result, of an imaginative and high-quality science education. This has been built upon by the inclusion of our science weeks. The provision of an imaginative science curriculum provides children with secure foundations for understanding the world. Children engage with our exceptional local environment to ensure they learn varied and first hand experiences of the world around them. Since science lends itself to the outdoors, children must be given this opportunity to experience it.

Pupils are encouraged to behave like scientists from the start. They are taught to make predictions, test their ideas through practical enquiries and hands on learning. Fair testing is taught from the very first lesson, as is the use of scientific equipment meaning that as children progress through the school they become proficient in designing their own experiments to learn about the world they live in.

Teamwork is fostered by children learning together in mixed ability groups, therefore, giving support to those where needed and thus provides them with the confidence to put their conjectures forward. This develops in to meaningful communication and purposeful discussion between pupils using scientific language.

Throughout their science journey at Poulner Junior School children learn how simple scientific concepts explain everyday phenomena and the importance of science in everyday life.