

## Droxford Junior School's Science Intent Statement

It is fundamental that Science at Droxford has the importance placed on it that it deserves. Indeed, weekly 2-hour sessions are delivered to each class throughout the week as we believe that it benefits the children's learning to have this continuous provision. The location of our school, within the South Downs, is incredibly special to us and we aim to utilise such a beautiful and rich environment within our science teaching. This can be seen in our longitudinal studies, for example thinking about which plants would be the best pollinators for our new wildlife garden. We hope that the use of our outside area will encourage children to be respectful to all living organisms and provide opportunities for a continuous line of inquiry that can be threaded through the school day.

The plethora of scientific terms can often be a barrier to a child's learning in Science. As a result, our teaching of vocabulary is planned and structured where the beginning of each lesson is focused on either the re-visiting of previous vocabulary or the introduction of new vocabulary. We believe that if you don't use it, you lose it!

We want our children to have a secure grasp of scientific vocabulary which is in their long-term memory and can be used in the right contexts, across a range of topics. Scientific language is taught and built upon as topics are re-visited in different year groups and across different key stages. In Year 3 and 4, we look at '**Animals including Humans**' where we focus on nutrition and the digestive system as well as skeletons and different types of teeth. In Year 5 and 6, we then develop this learning by looking at the circulatory system and the functions of the heart and blood.

There are many units which the children will cover in both Year 3 and 4 and Year 5 and 6 including: **Electricity, Light, Forces, Properties of Materials and Living things and their Habitats**. We use progression grids to ensure that the knowledge and skills is developing throughout the year groups and that the children are building on prior knowledge each time. In Year 3 and 4, the children will also study **Plants**, looking at the conditions needed for plant growth as well as pollination and the life cycles. They also learn about **Sound** and how sound is made using vibrations- they even make their own musical instruments!

In Year 5 and 6, the children learn about **Earth and Space**, focusing on the movement of the Earth and other planets as well as the sun and moon. They also study **Evolution and Inheritance**, studying how living things have changed over time and even making their own fossils!

Our investigative science does encourage children to ask important questions about how things work and why things happen in a certain way. This gives them ownership over their own learning thus making it more memorable and purposeful for the individual child. For example, when the upper school were learning about blood, children were fascinated by hearing about how some of their peers had specific blood conditions.

Through our science learning, we would like the children to consider ways in which science influences everyday life. In our Year 3 and 4 unit on plants, we carry out a number of investigations to find the best conditions for plants to grow. To link this with the wider world, and as part of our ongoing assessment, we then ask the children to write a letter to the lady who runs the local school allotment club, telling her what we have found out and why we think this might be useful information.

We strive to promote a joy and excitement for learning, which our children can use in all other areas of the curriculum and ultimately in life. We want our children to experience many WOW moments without taking away from the intended learning. Such WOW moments might be in the form of a teacher constructing a demonstration to model a specific concept or instil a sense of awe and wonder. This can be seen in the upper school when the children made their own blood using food colouring, cheerios, blu-tac and water and in the lower school whereby the demonstrated how a pair of tights can be used to represent the digestive system.



All in all, Science should be a subject that children at our school look forward to and should inspire a love for this subject for the rest of their lives.

