

INTENT

Our broad and balanced Science curriculum has been developed in line with the National Curriculum and promotes our REAL wheel values, learning superpowers and the UNCRC to develop skills and knowledge. Science teaching at Hursthead Junior School aims to give 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 as well as an understanding of the uses and implications of Science, today and for the future.

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 LKS2 and studied again in further detail in UKS2. 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 upon, and effective questioning to communicate ideas is encouraged. Concepts taught should be 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.

IMPLEMENTATION

Children are taught Science through a knowledge based curriculum which is planned focussing on the National Curriculum objectives. Science will sometimes be taught within a cross-curricular topic if appropriate, but is most often taught discretely and will be made explicit to the children at the start of each lesson.

Teachers have high expectations for pupils no matter their ability. Therefore, setting ambitious learning intentions and identifying challenges. Scientific investigations are planned within each unit to enable pupils to demonstrate their knowledge, understanding and skills in a practical, hands-on way, both within the classroom and in the outdoor space.

Teachers work together with Teaching Assistants (where appropriate), to ensure pupils with additional needs can access Science. Pupils will be encouraged to communicate and record their work in a variety of different ways, including orally, visually and in writing. Lessons are planned to incorporate a range of scientific equipment to enhance the learning where appropriate, and a combination of collaborative and independent learning helps to support children working at a spectrum of abilities. We also value the importance of visitors and educational visits to enhance their contextual knowledge and engage learners.

Yearly CPD and feedback from training courses, book looks and learning walks enable staff to keep up to date with the Science curriculum and see how the children are progressing year on year. (see 'progression of skills' document).

IMPACT

Teachers formatively assess which children are making progress towards the National Curriculum objectives by considering if they are using these skills as set out in the success criteria. Teachers' assessments are based on a combination of written outcomes, practical investigation observations and pupil discussions about their learning. Teachers use assessment for learning to tailor lessons around our children and help us plan for next steps. Children will communicate scientific information in a variety of ways including diagrams, drawings, graphs, tables and written explanations.

Children are encouraged to become increasingly independent in science as they progress through Key Stage 2, selecting their own tools and materials, completing pupil lead investigations and choosing their own strategies for recording.

Feedback from planning, pupil voice, learning walks and book scrutinies evaluate the impact of our curriculum. Feedback from teachers has impact on our pupils, often with next step questions to push learning on.

Children leave the school with a broad understanding of how important Science is in everyday life and the impact it has on the world we live in.