



THE INTENT, IMPLEMENTATION AND IMPACT OF THE SCIENCE CURRICULUM

Our vision is that all children will leave Wildmoor Heath School with the knowledge and skills to explore and investigate the world as scientists; curious and excited to discover more.

INTENT

In Science, as in all our subjects, the six unique Wildmoor Heath School curriculum drivers play an important part in the teaching and learning. We have chosen our drivers to meet the needs of our learners, which are Opportunities, Well-being, Community, Environment, Communication and Creativity. Our intent is to give all our learners a strong understanding of the world around them whilst acquiring specific skills and knowledge to help them to think scientifically. We want our children to be naturally curious so we have developed our curriculum to ensure full coverage of the National Curriculum whilst fostering a sense of awe and wonder of the world. It is our intention that all children develop a curiosity about the world they live in and enjoy sharing their findings both in school and at home. We set out to offer the children rich experiences, experiments, field trips and visits to help develop their understanding, knowledge and skillset in science.

Wherever possible, we strive to spiral knowledge and skills through subject teaching and across the curriculum. In this way, pupils learn more deeply by revisiting concepts, widening their understanding and having multiple opportunities to apply their skills.

IMPLEMENTATION

To secure high standards of teaching and learning in science, we implement a curriculum that is inclusive and progressive throughout the whole school. Planning for science is a process in which all teachers are involved to ensure that the school gives full coverage of the National Curriculum programmes of study for Science for pupils aged 5 to 11 years (Key Stages 1 and 2) plus the Understanding of the World in the Early Years Foundation Stage. We teach Science at Wildmoor Heath as discrete units on a weekly basis in Key Stages 1 and 2 however, we also teach Science in many cross-curricular contexts throughout our themes. This enables learners to apply their scientific learning across a range of subjects and disciplines, hence cementing their knowledge and skills. At Wildmoor Heath, we embed specific scientific enquiry skills into each topic. We revisit, revise and develop these topics throughout the primary years at Wildmoor Heath. Children 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. Teachers introduce a progressive range of scientific vocabulary to the learners across each year group, and encourage them to learn and to use these words when communicating their ideas.

We provide a range of motivating experiences to engage our learners including, science week, visiting experts, class trips and workshops including a STEM workshop on the Year 4 residential trip and scientific focused activities on the Year 6 residential trip. Learning outside of the classroom is also an essential part to learning science and we are fortunate to have our own outdoor learning zone, The Haven, which we use extensively. In addition, the school is adjacent to Wildmoor Heath, a Site of Special Scientific Interest, which offers opportunities for field trips. It is essential children observe and immerse themselves in their local environment to apply their learning practically to real-life situations. In Key Stage 1, we teach each element of an investigation separately over the course of each academic year whereas by the end of Key Stage 2, we expect the children to plan, carry out and write up a full investigation designed by themselves – embedding the knowledge and skills they have acquired during their time at Wildmoor Heath.

The global pandemic during the academic year 2020-21 saw science lessons provided remotely for all pupils, with some learners being in school and receiving the same lessons under the teacher guidance. Despite some educational visits and outings being restricted, the curriculum was enriched through British Science Week when innovation was the theme. We celebrated and promoted it by challenging learners to design their own innovation that could help us at Wildmoor Heath. During the summer term, when

restrictions were lifted, we also welcomed a visit from our local travelling farm, Miller's Ark, where the children got the opportunity to learn more about animals, first hand.

YEAR TERM	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
YEAR 1	Plants Seasonal changes	Identify light sources	Seasonal changes	Everyday materials	Seasonal changes Animals including humans	Plants
YEAR 2	Living things in their habitats	Animals including humans	Animals including humans	Uses of everyday materials	Scientists and inventors	Plants
YEAR 3	Rocks and soils	Light	Forces and Magnets	Animals including humans	Plants	Plants
YEAR 4	Living things and their habitats	Animals including humans	States of matter	Electricity	Sound	Sound
YEAR 5	Forces	Earth and Space	Living things and their habitats	Properties and changes of materials	Properties and changes of materials	Animals, including humans
YEAR 6	Light	Electricity	Living things and their habitats	Animals including humans	Inheritance and Evolution	Inheritance and Evolution

IMPACT

By the time learners leave us for secondary school, they will be fully prepared for transition to secondary school when they leave Wildmoor Heath. They will have gained a rich body of scientific knowledge and a wide range of transferable skills, which they can apply to other subjects, contexts and environments. We assess our learners are making good or better progress based on their knowledge and understanding of the National Curriculum. We monitor this through book audits, having discussions with the children (pupil voice) and observing a range of science lessons. We formally assess on a termly basis, tracking the child's progress. We also check the children's knowledge after each unit, using practical opportunities, quizzes, discussions and targeted questions. This allows teachers to set appropriate, progressive targets and challenge children in their thinking and learning, especially as they move into the next academic year.
