Science

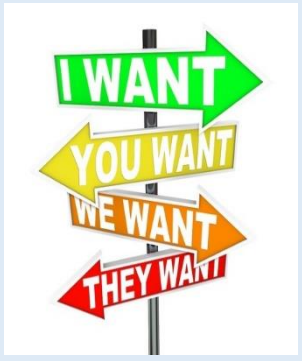
The Hoyle Court Curriculum Flightpath

What do we do here?

INTENT

The Hoyle Court Commitment

'What we want to achieve'

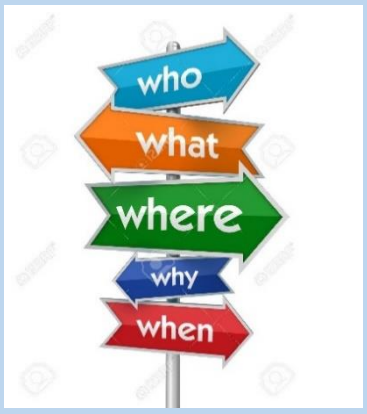


At Hoyle Court Primary School, it is our vision to inspire a lifelong love of science within our pupils. We provide children with a rich, varied and inclusive curriculum At Hoyle Court Primary School, it is our vision to inspire a lifelong love of science within our pupils. We provide children with a rich, varied and inclusive curriculum to give *all* children a strong understanding of the world around them no matter what their learning ability. Whilst also ensuring they acquire skills, knowledge and conceptual understanding to help them to think scientifically, to gain an understanding of science processes and the uses and implications of science, today and for the future. Children are given the opportunity to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena-where appropriate using the local environment such as the River Aire, Baildon Moor and the school grounds to enhance their learning. They are encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes. All children are encouraged to develop and use a range of skills including observations, planning and investigations. They are immersed in scientific vocabulary as well as being empowered to question the world around them and become independent learners. Children can apply their knowledge of science when using equipment, conducting experiments, building arguments and explaining concepts confidently and logically. Lessons in school are engaging with practical hands-on activities which are enhanced with local trips to Bracken Hall, Nell Bank and Denso Marsden Nature Reserve. We provide opportunities so that when children leave us they have acquired the scientific skills which aids their knowledge and understanding not only of the topic they are studying, but of the world in which they live.

IMPLEMENTATION

The Hoyle Court Delivery

'How we will do it'



The implementation of Science at Hoyle Court follows a long-term plan for each Key Stage adapted from Developing Experts. To ensure high standards of teaching and learning in Science, we implement a curriculum that is progressive throughout the whole school.

Science is embedded as part of a sequence, focusing on knowledge and skills stated in the National Curriculum. Our Science skills progression document ensures the curriculum is covered and the skills/knowledge taught are progressive from year group to year group. We carefully measure progress though assessment, these are specific to the skills taught in each of the topics. We track assessment data through school using Otrack.

EYFS

In the Foundation Stage Science is embedded throughout the curriculum. The objectives taught are taken from the EYFS statutory framework and the Development Matters for Reception to match the programme of study for science. The most relevant statements for geography are taken from the following areas of learning:

Understanding the World

Understanding the world involves guiding children to make sense of their physical world and their community. The frequency and range of children's personal experiences increases their knowledge and sense of the world around them – from visiting parks, libraries and museums to meeting important members of society such as police officers, nurses and firefighters. In addition, listening to a broad selection of stories, non-fiction, rhymes and poems will foster their understanding of our culturally, socially, technologically and ecologically diverse world. As well as building important knowledge, this extends their familiarity with words that support understanding across domains. Enriching and widening children's vocabulary will support later reading comprehension.

Early Years Curriculum

Knowledge and Understanding of the World

People, Culture and Communities

- Describe their immediate environment using knowledge from observation, discussion, stories, non- fiction texts and maps.

The Natural World

- Explore the natural world around them, making observations and drawing pictures of animals and plants.
- Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class.
- Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.

Also, see curriculum map coverage.

Year A

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Key Stage 1	AMAZING ANIMALS Animals, including humans – All about animals Into the Woods	AMAZING ME Animals, including humans – All about me Into the woods	MAGNIFICENT MATERIALS Exploring everyday materials 1 To infinity and beyond	GROWING THINGS Plants Environment	MAGNIFICENT MATERIALS Exploring everyday materials 2 Kings and Queens	WILD WEATHER Seasonal changes Holidays
Lower Key Stage 2	FASCINATING FORCES Forces and Magnets The Iron Man	AMAZING ME Animals, including humans Roaming Romans	LUMINOUS LIGHT Light Inside out	NATURE NURTURERS Plants Amazing Amazon	THIS PLANET ROCKS Rocks Groovy Greeks	DETECTIVES Scientific enquiry Brilliant Baildon
Upper Key Stage 2	ANIMALS AND ME Animals, including humans Saltaire	LIFE CYCLES Living things and their habitats Hidden Depths	FASCINATING FORCES Forces Tudors	SURVIVAL OF THE FITTEST Evolution and inheritance Galapagos and Evolution	MATERIALS! Changes of materials Automation and Robots	MATERIALS! Properties of materials WW1

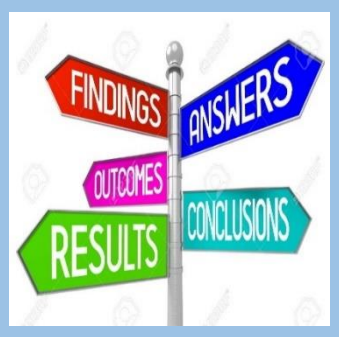
Year B

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Key Stage 1	ANIMALS AND ME Animals, including humans – Growth Super heroes	LIFE CYCLES Animals, including humans – Life Cycles Great and Ghastly Events	HABITATS AND HOMES Living things and their habitats Pole to pole	HABITATS AND HOMES Living things and their habitats – habitats around the world Hot	GROWING THINGS Plants Castles	MAGNIFICENT MATERIALS Uses of everyday materials Pirates
Lower Key Stage 2	AMAZING ME Animals, including humans Riotous Royalty	LIVING THINGS Living things and their habitats The World Around Me	ELECTRICITY! Electricity Mountains and Volcanoes	SPECTACULAR SOUNDS Sound WW2	CONSERVATION Living things and their habitats - Conservation Greatly Green Growers	WHATS THE MATTER? States of matter Vicious Vikings
Upper Key Stage 2	ANIMALS AND ME Animals, including humans Survivors	ELECTRICITY! Electricity Egypt	LUMINOUS LIGHT Light Stones and bones	SPACE! Earth and space Earth and Space	THE CLASSIFICATION CODE Living things and their habitats The Maya	CLIMATE CHANGE Looking after our environment Bodies, Hearts and Minds

Further information regarding our approach to teaching Science can be found in our Skills Progression Document.

IMPACT
The Hoyle Court Outcomes

'How we know it works'



The impact of our Science curriculum is monitored through regular monitoring by the subject leader. This may include monitoring of books, displays, pupil voice, lesson observations, photos and staff questionnaires.

We evaluate the success of our Science curriculum, using a number of means:

- ✓ Outcomes, including both attainment and progress.
- ✓ Children are engaged and enthusiastic about Science and maintain a love for the subject as they are consistent challenged to achieve within the subject.
- ✓ Children are given many opportunities to conduct practical and investigation work
- ✓ Engagement and enjoyment – pupils will have a positive attitude towards Science which will be reflected in learning and pupil voice.
- ✓ Teachers will be providing a clear understanding of progression within Science, using the skills progression grids to ensure coverage.
- ✓ Quality of Education - Quality first teaching – well planned, well resourced, well informed, progressive and exciting geography lessons and learning opportunities.

Our priorities for Science in 2023/24 include:

- ✓ Ensure coverage of statutory expectations from the National Curriculum and progression in the development of skills throughout all key stages
- ✓ Develop staff knowledge and confidence in relation to the teaching of science and ensure they are using the skills progression grids
- ✓ Ensure work is presented neatly and consistently between classes
- ✓ Ensure practical work is carried out as much as possible
- ✓ Ensuring a consistency in all staff understanding and delivering quality first teaching consistently in reading.
- ✓ Introduce a system of assessment for science in all key stages
- ✓ Monitor teaching and learning through learning walks and book scrutinies