



ASHURST CE AIDED PRIMARY SCHOOL

SCIENCE POLICY

Aims - Our Intent

At Ashurst, we understand the need for all children to develop their Scientific ability as an essential component of all subjects and as a subject in its own right. A good understanding of scientific knowledge and conceptual understanding helps to support pupils work across the curriculum. We believe that Science is a body of knowledge built up through experimental testing of ideas and is also a practical way of finding reliable answers to questions we may ask about the world around us. Science at Ashurst seeks to develop children's ideas and ways of working that enable them to make sense of the world in which they live through investigation, as well as using and applying process skills. We believe that a broad and balanced science education is the entitlement of all children, regardless of ethnic origin, gender, class, aptitude or disability.

It is our aim for children to:

- acquire a growing understanding of the nature, processes and methods of scientific ideas.
- develop and extend their scientific concept of their world.
- Develop a natural curiosity and a scientific approach to solving problems.
- develop the skills of perseverance so that they can approach investigations with an enquiring mind.
- develop key skills of investigation - including: observing, measuring, predicting, hypothesising, experimenting, communicating, interpreting, explaining and evaluating.
- use correct scientific vocabulary
- understand how scientific discoveries and understanding shape our world and how we live in it.
- Use their scientific understanding and apply this to a range of contexts and situations.
- Use their scientific understanding to inform their decision making about staying safe.



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Teaching and Learning approaches - Our Implementation

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 2014 and 'Understanding of the World' in the Early Years Foundation Stage. Teachers plan to suit their children's interests, current events, their own teaching style, the use of any support staff and the resources available. Science teaching at Ashurst, involves adapting and extending the curriculum to match all children's needs. Where possible, Science will be linked to class topics as detailed in the school's Long-term Plans. Science will also be taught as discrete units and lessons where needed to ensure coverage. Due to the mixed year groups in our classes, Science units are taught on a two-year rolling programme. This ensures progression between year groups and guarantees topics are covered.

The Early Years Foundation Stage

In Early Years Science is taught as an integral part of the topic work and specifically through the strand of 'Understanding the World'. Science teaching and learning is also linked to the other strands of The EYFS framework for learning. Children learn about the world around them by finding out and exploring, asking questions, showing curiosity about objects, events and people and using their senses to explore their surroundings. Children's understanding of science is first developed through finding out about everyday occurrences and natural phenomena such as what we look like, plants, seasons, overflowing drinks and falling over.

At Ashurst teachers and teaching assistants support children to develop a solid understanding of things occurring around them in their day-to-day lives. Children are encouraged to be creative and inquisitive as they participate in activities. Children are encouraged to use their natural curiosity, while taking part in exploratory play in specific scientific areas as well as areas that link across the EYFS framework.



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Key Stage One

During KS1, children observe, explore and ask questions about living things, materials and the world around them. They begin to work together to collect evidence to help them answer questions, find patterns, classify and group objects, research using a variety of sources and carry out fair testing. Children use reference materials to find out more about scientific ideas. They share their ideas and communicate them using scientific language, drawings, charts and tables. Science lessons in KS1 may be taught discretely or connected to other curriculum areas. Children often use the outdoor area in their science learning.

Key Stage Two

Children are encouraged to extend their scientific questioning skills to further develop their understanding about the world around them. They carry out a range of scientific enquiries including: observations over time, pattern seeking, classifying, grouping and researching using other sources (including computing resources). Children in KS2 learn to plan science investigations and develop their understanding of what constitutes a fair test and a control.

SEND Provision and Equal Opportunities

At Ashurst, all lessons should be appropriately differentiated to meet the varying needs of all children; ensuring that children of all abilities and backgrounds have an equal opportunity to make good progress and enjoy science. Children who achieved an assessment of 'greater depth' in their prior attainment are tracked as a more able children and should be identified on all planning.

Outcomes - Impact

Assessment:

All children are tracked using the in-school tracking system. After each unit of work, class teachers assess children based on their scientific knowledge and



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understanding linked to the objectives in the National Curriculum. In addition to this, children are assessed in working scientifically across the year and phase: Key Stage 1, Lower Key Stage 2 and Upper Key Stage 2. Each half term, child progress is captured and tracked against a year group's targets, which are related to their prior attainment in the Early Years and Key Stage 1 teacher assessments.

Cultural Capital

At Ashurst we aim to support every child to gain the confidence and the ability to understand and contribute to a varied cultural awareness. We believe that taking children's learning experiences beyond what they already know is a fundamental part of becoming an educated citizen in society.

Science contributes to this through

- Whole school science themed days and Science Week.
- Showcasing the children's science work around the school.
- Visits and visitors to inspire and encourage pupils.
- The positive and passionate teaching of science.
- Helping children to answer scientific questions about the world around them.
- Equipping children with the scientific knowledge required to understand the uses and implications of science, today and for the future.
- Encouraging children to explore the work of scientists past and present, local and world-wide.
- Providing excellent opportunities for children to plan lines of enquiry, ask opened ended problems, analyse results and draw conclusions based on scientific findings.

Monitoring and Evaluation

The Science Co-ordinator and class teacher is responsible for monitoring the standard of the children's work and the quality of teaching in Science. The Science Co-ordinator is responsible for supporting colleagues in the teaching of Science, for being informed about current developments in the subject and for providing a strategic lead and direction for the subject in the school. In the Foundation Stage, objectives will be recorded in a children's learning journal. Across Key Stages 1 and 2, pupils work will be recorded in their Foundation



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books. Children should be provided with opportunities to record their learning: written, pictorial, tables or graphs. All work should be marked in line with the school's marking and feedback policy.

Roles and Responsibilities

Subject Leader - To have an impact on raising standards of attainment for Science across the whole school.

- Adapt and use the Programme of Study for Science across the whole school to meet the needs of our children.
- To monitor the whole schools and individual needs.
- To be able to assess individual professional development opportunities and needs.
- To monitor and maintain high quality resources.
- To maintain an overview of current trends and developments within the subject.
- To ensure, together with the Head Teacher an effective programme of moderation and assessments.
- To ensure a regular and effective programme of analysis of short-term planning is in place.

Resources

Trays are maintained by the subject leader in the resource's cupboard. The trays are labelled and organised in Key Stage units. Missing or broken resources should be reported to the subject leader as soon as possible and not put back broken, as this could cause injury.

Health and Safety

The class teacher will carry out risk assessments where it is deemed appropriate. The Risk Assessment is completed using the school's proforma, and should be discussed and agreed with the Headteacher.

This policy was adopted: July 2021

The policy is to be reviewed: September 2024