



Welholme
Academy

Science Policy

Definition

Science is the process of investigation into the natural world. As scientists we observe, experiment and ask questions to improve our understanding.

Date produced – April 2022

Intent

Purpose of Study

Science teaching at Welholme Academy 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 and also an understanding of the uses and implications of science, today and for the future. At Welholme Academy, scientific enquiry skills are embedded in whole school topics throughout the year. These topics are revisited and developed throughout their time at school. Topics, such as Plants, are taught in Early Years and Key Stage One and studied again in further detail throughout Key Stage Two. 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 up, 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.

Aims

Science teaching at Welholme Academy aims to ensure that all pupils know and understand:

- A developing scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics
- A developing understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them
- the scientific knowledge required to understand the uses and implications of science, today and for the future

Implementation

Organisation

A theme based approach to learning is promoted at Welholme. The whole school follow the same overarching theme each half term. For each theme, each year group has their own focus which links in to the overarching theme. Year groups use their theme work to answer an enquiry question. Each theme has a foundation subject focus which changes each half term. The science work carried out is recorded in a theme book. Most of the learning about science will be carried out through the use of first-hand practical experiences, this will be backed up with the use of appropriate secondary sources, such as books, photographs and videos. Work in science will be evidenced through written work, photographs and discussions.

Resources

At Welholme Academy we understand the importance of first-hand experiences for our children and visits are encouraged where possible.

SEND

All children at Welholme Academy will access quality first science teaching and are taught age appropriate objectives which are set out in the subject overview document. To enable all children to achieve their potential in science, scaffolding and support is used appropriately.

All children at Welholme Academy have access to quality first teaching in all areas of the curriculum which enables them to take part in a broad and balanced curriculum.

Teachers have high expectations of all children. Inclusive and high-quality teaching is delivered to the whole class in science with bespoke support and interventions carefully planned for groups or individuals where needed.

In order to develop knowledge and skills in science some children may need extra intervention or provision. Interventions, additional support, resources and scaffolds are put in place to ensure the children reach their goals and learn in the best possible environment and any barriers to science are minimised.

Support in science can be in the form of one to one or small group but the needs of the child and how they learn best are always considered first and foremost. Working closely with peers in mixed ability groups enables the children to work inclusively and to support each other. Parallel to this we believe firmly that a child should develop independence skills in science as soon as possible. Opportunities are provided to enable this and any support given to a child / children will be short term and reviewed regularly.

Impact

Assessment

Formative assessment is carried out constantly, within lessons, through questioning and discussion to check children's understanding. Marking in theme books links to basic skills to promote a high standard of spelling, punctuation and grammar across the curriculum. Marking also links to factual knowledge as well as their understanding and summarisation of the tasks. Proof of Progress quizzes are used in theme lessons to help children retain knowledge. This also enables children to assess their own learning and identify targets for their future work. In turn this supports teachers in providing feedback for children's work.

Summative assessment is carried out yearly to indicate if a child is working towards, at or above age-related expectations. Children are assessed against the relevant National Curriculum statements for science which are listed in the subject overview document.

Safeguarding & Child Protection

Miss Glasby is the Designated Lead teacher with responsibility for Safeguarding, Child Protection and Looked After Children. Mr Chamberlain is the Deputy. If anyone has any concerns about the care or welfare of a child, they should refer to Welholme Academy's Child Protection Policy on our school website www.welholmeacademy.com or speak to one of the Pastoral Team.

Equalities

At Welholme Academy we value all children and adults equally. The ethos of our school supports the development of self-respect and self-esteem in all children, staff and the community it serves. School and Trust staff are committed to running an equitable and inclusive school in which every individual matters, irrespective of ability, age, beliefs, culture, disability, ethnicity, gender, health, language, race, religion, sexual orientation and social circumstances.

Monitoring and Evaluation

Science is monitored using an annual cycle of planning, teaching and book scrutiny. Following this, feedback is given to all teachers so that good practise can be shared across school. Questions are posed to highlight areas for development and if necessary changes to practise are made. This is constantly reviewed in lessons and future enquiries. Any findings and suggestions are shared with the Senior Leadership Team with the aim of improving teaching and learning in science throughout the school, and the Science Subject leads will work in conjunction with year groups to ensure areas for development are highlighted and acted upon.

Produced by: Dawn Fuller and Lisa Ballard

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