Askam Village School – Everybody Matters, Every Moment Counts
Curriculum statement for the teaching and learning of Science 2023 - 2025

Intent

Our science provision at Askam Village School aims to immerse our children in the knowledge and skills they require to be the scientists of the future. It is our intention to encourage and enable children to ask questions about the world around them, as well as to develop the skills and confidence necessary in how to go about finding answers to these questions. The science curriculum at Askam Village School is designed so that knowledge and skills are progressive and transferrable to other curriculum areas. Cross-curricular links are continually developed. We believe that science can unlock ambition and drive in children to learn and succeed, and we aim to inspire in our children a belief that science is for everyone.

Underpinned by

The teaching of skills	The application of skills	Vocabulary
Pupils will be taught how to use a range of science equipment and technology confidently and accurately. They will develop a range of working scientifically skills including questioning; making observations; planning and performing tests; recording and presenting results, and examining evidence to make and justify scientific conclusions. The skills the pupils learn are transferrable and will support their learning in other subjects, thereby deepening their understanding of the world around them.	During their time at Askam Village School, pupils will be given regular opportunities to practise and apply their working scientifically skills. They will experience a range of different enquiry types: observing changes over time; grouping and classifying; noticing patterns; fair and comparative tests and researching of secondary sources. Cross-curricular links will allow skills to be transferrable and consolidated between curriculum subjects. They will also have opportunity to apply their growing knowledge of scientific vocabulary through practical, collaborative, presentation and written tasks.	The children will understand and use a range of appropriate scientific vocabulary to discuss, communicate and justify their ideas. They will also understand the vocabulary relevant to the scientific method and associated with working scientifically. Knowledge organisers will be sent home to parents at the beginning of each unit so that new vocabulary and key ideas can be discussed, and will be available in their science books. Working walls will be used to display scientific vocabulary relevant to each topic.

Implementation

Curriculum Approach

Pupils engage with science weekly and are guided, supported and stretched through the science topics which build upon prior knowledge and working scientifically skills. Annual subject coordinator overviews map out the science curriculum from EYFS to Year 6 and coverage is monitored. Science is consistently taught in single-age classes.
Planning is carefully differentiated to enable SEND children to access the science curriculum whilst also enabling opportunities for pupils working at greater depth to broaden and apply theirknowledge, skills and scientific vocabulary.
Science is assessed using Primary Headstart end-of-unit tests. Standardised scores are formulated and results are passed to the science coordinator as each assessment is completed.

Resources

Teachers ensure that pupils have access to a variety of practical science resources to enhance and support learning. Children are taught to name and use a range of scientific equipment correctly, so that they may select equipment appropriate to its purpose. Opportunities are given for children to practise using these pieces of equipment to develop competency and precision. As they progress through school, children are supported to use science resources with increasing independence, accuracy and critical judgement. An application for a BDAE £500 bursary is being completed to enable us to buy more science resources.

Sharing work

Science work is recorded in science books and is shared between pupils and staff. In class, children also share their learning in a variety of ways: discussion, presentations, drawings, posters and information booklets.
There are frequent opportunities to celebrate children's science work and show the process oftheir learning via display boards in school. Occasionally, science work is shown in class assemblies alongside other curriculum subjects.
Children's work is also shared online with parents using Facebook and the school website. Subject awards include a science award during the academic year.

External Stimuli

Pupils are taught about how the world has influenced scientists throughout history.
Where possible, teaching is made relevant to children's everyday experiences and pupils are encouraged to question the structure and behaviour of the physical and natural world around them.
External agencies visits / visitors include: Professor Pumpernickel, Dowdales, UVHS, Furness Academy, Barrow Sixth Form College, BAE, ZooLab and STEM Ambassadors

Thoughtful Questioning

Questioning is a fundamental aspect of science; it is integral to all types of science enquiry and is developed through every science topic. Pupils often ask questions at the beginning of a science topic to focus their learning as they progress through the unit. In lessons, some questions may be closed, requiring a specific answer based on scientific knowledge. More often, questions are child-centred and open, allowing for i) a range of answers from children of all abilities and life experiences and ii) science investigations. Children are encouraged to understand that some questions may have more than one answer.

SMSC

At the heart of science lessons, are collaborative practical tasks that require respect and co-operation for shared decision making amongst pupils.
Through discussing past and present scientists and their discoveries, children gain an understanding of the role and impact science and innovation have in society. Inaddition, this enables children to learn about other times and cultures, and the imagination, creativity, self-belief and perseverance necessary for these inspiring scientiststo succeed.
Some science topics require pupils to appreciate different viewpoints, e.g. the theory of Evolution and creationism.
Children are also encouraged to develop the working scientifically skill of using evidence to support or refute their ideas and thus to offer reasoned points of view.
Some science topics lend themselves to the exploration of wider moral and social implications on the world, e.g. the positive and negative impacts of humans on habitats and the environment.
In science, children are encouraged to ask questions, and this can lead to discussions around "big" questions of a more philosophical and spiritual nature, e.g. How did life on Earth begin?

Impact

By the end of the key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the subject of science programme of study.

PUPIL VOICE	EVIDENCE IN KNOWLEDGE	EVIDENCE IN SKILLS	BREADTH AND DEPTH
Pupils enjoy science lessons and look forward to the annual science week. They have a say in the visitors they would like to attend during science week, based on previous experiences and interests.	Pupils understand how their science knowledge is relevant in the outside world and why it is important to learn about science. Pupils can demonstrate and apply their science knowledge. They are able to articulate both orally, and in writing, clear explanations, reasoned opinions and researched information using acquired vocabulary from science lessons.	Within the science curriculum, there are opportunities for all children to demonstrate their working scientificallyskills, orally, and in writing, as well as during more practical and investigative tasks. Pupils are able to apply their working scientifically skills to plan and perform different types of enquiry to answer a question. They are able to present theirfindings in a variety of ways, e.g. results tables, scientific diagrams and graphs. Pupils can examine their findings and explain how and why they have reached their conclusions.	Much opportunity is given for children to develop a deeper understanding, level of skill and appreciation of science. Pupils have developed their scientific ideas to and beyond the expected standard by the end of a science topic. Challenges are available to extend scientific skills within the classroom. Some children can use their skills and knowledge in other curriculum areas to make links to other topics. Through reflecting on the subject, children are able to self-identify what skills they would like to improve and develop. Visits and visitors create further opportunities to consolidate and enrich scientific understanding. A dedicated whole school Science Week is an ideal opportunity for science to have a high profile and for excellence in science to be shared.