Curriculum Statement for Science at Alder Grove CofE Primary School

Community Centred	Proactive Citizenship	Inclusive Education

Intent

At Alder Grove CofE Primary School, pupils foster their natural curiosity for science through an exciting, inclusive and inspiring curriculum. Through purposeful enquiry and a rich stimulating environment, pupils are given opportunities to explore, question and be challenged in order to develop a deeper understanding of the world around them so that they have a deeper understanding of the world we live in. We do this through exciting, practical, hands on experiences, which encourage curiosity and foster learning.

We believe that a high-quality science education provides the foundations for understanding the world. Through building up a body of key foundational knowledge and concepts, pupils should be encouraged to recognise the power of reasoning and develop a sense of excitement and curiosity about natural phenomena. They should be encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes. Science in our school is about developing 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. The staff at Alder Grove ensure that all children are exposed to high quality teaching and learning experiences, including exploring their outdoor environment, whilst developing their scientific enquiry and investigative skills. They are immersed in scientific vocabulary, which aids children's knowledge and understanding not only of the topic they are studying, but of the world around them. We intend to provide all children regardless of ethnic origin, gender, class, aptitude or disability, with a broad and balanced science curriculum.

Implementation

Working scientifically, children focus on the key features of scientific enquiry (observing over time; pattern seeking; identifying, classifying and grouping; comparative and fair testing (controlled investigations); and researching using secondary sources), thus learning a variety of approaches to answer scientific questions. They will also seek answers to questions through collecting, analysing and presenting data.

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Children will develop their skills of working scientifically through coverage of the following areas:

EYFS	Key stage 1	Key stage 2
ELG: • Make comments about what they have heard and ask questions to	• Seasonal changes • Plants • Materials	• Sound • States of matter • Rocks • Plants • Materials

clarify their understanding. • Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices. • 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	• Living things and their habitats Animals including humans	• Living things and their habitats • Light • Forces and magnets • Earth and space • Electricity • Animals, including humans • Evolution and inheritance

As children progress through EYFS to KS1 into KS2, they will develop, broaden and deepen their scientific view of a wide range of scientific ideas. This will be achieved through practical, hands-on tasks, asking their own questions, selecting the most appropriate ways to answer questions using different types of scientific enquiry, and drawing conclusions based on data and observations.

Throughout their scientific journey, children will be encouraged to develop appropriate scientific vocabulary and use this during discussions, presentations and written work. They will also have opportunities to learn about the men and women who have contributed to the world of science.

In order to provide an exciting and rich curriculum, we use a variety of resources in class, and welcome visits into school as a means of bringing expert knowledge and inspiration to the children's learning. Class trips are also used to enhance the curriculum where appropriate.

The Statutory Framework for the Early Years Foundation Stage and National Curriculum provides the basis for our Science Programme of Study. This ensures coverage and progression across each Key Stage.

Intended Impact

- By the end of Year 6, children will be able to talk about scientific concepts with confidence and enthusiasm.
- Children have a curiosity to find out more about the world around them and a respect for the role that scientists play in our everyday lives.
- Pupil voice is used to further develop the science curriculum, through questioning of pupils' views and attitudes to science to support the children's enjoyment of science and to motivate learners.

Assessment

Assessments of the children's knowledge and understanding will be ongoing throughout the year. Assessment will include observations, discussions and written outcomes. A summative assessment of whether a child is working at age related expectations plus their attitude to learning science will be reported to parents/carers in a written annual report.