

**Intent:**

At Alderman's Green Primary School, our science curriculum fosters a healthy curiosity in children about our universe and promotes respect for the living and non-living. We intend to develop children who are not only inquisitive and knowledgeable but also able to plan fair investigations and experiments which they can use to form conclusions using scientific vocabulary. We want our children to be able to discuss and write about the aspects of science they have learnt using scientific vocabulary. We want children to be able to build arguments and explain concepts confidently using appropriate language. Through our teaching of science, we want children to gain an understanding of scientific processes and also an understanding of the uses and implications of Science, today and for the future.

The national curriculum for science aims to ensure that all pupils:

- \*Develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics.
- \*Develop 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.
- \*Are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.

Our approach to science takes account of the school's context, where possible we ensure access to people with specialist expertise and places of scientific interest. When appropriate, we use our school grounds to enhance the teaching of science with the inclusion of our very own forest school.

We want our children to have a love of science and aspire to be scientists and life-long learners. We achieve this by having Core Value Science champions (inspirational scientists or inventors) linked to the unit we are studying and reflect our diverse and ever changing community.

**Implementation:**

Science teaching at Alderman's Green Primary School is taught as discrete units throughout the year culminating in the summer term being dedicated purely to Science. Teachers adapt and extend planning to match all pupils' needs, their interests, current events, their own teaching style, the use of any support staff and the resources available.

Our children begin their science experience in Early Years Foundation Stage, with informal investigations within the setting. Teachers facilitate children's curiosity with open ended questions and clearly thought-out learning experiences which are both child and adult lead. In KS1 and KS2, key skills are mapped for each year group and are progressive throughout the school. These ensure systematic progression to identified skills end points which are in accordance with the Working Scientifically skills expectations of the national curriculum. Skills are revisited throughout the curriculum to embed knowledge and build upon on prior learning. We want children to use this bank

of skills to independently plan investigations and fair experiments that will develop their understanding of the world around them. Children will therefore complete at least one supported investigation/experiment per half term, so that by Year 5/6 children are able to plan and conduct fair tests independently. We use a 'Big Question' for each topic to encourage children to want to explore, investigate and experiment.

Underpinning our science lessons, we have selected seven key skills we would like to develop in our children as Scientists. These key skills build upon one another from EYFS to Key Stage 1 and then moving into Key Stage 2. Key symbols have been used so that children can speak with confidence when asked about predictions, observations, explaining interpretations and identifying further questions to investigate. Through doing this, we have created a consistent approach to the way science is taught in Alderman's Green.



I can ask questions. I can use scientific vocabulary.



I can make predictions using my prior learning.



I can observe and measure what happens.



I can interpret and explain what I have found.



I can identify further questions to investigate



I can use equipment to carry out a fair test.



I can record my observations in different ways

### Impact:

The successful approach to the teaching of science at Alderman's Green Primary School will result in a fun, engaging, high quality science education that provides children with the foundations for understanding the world around them and prepares them for a future in which science plays an integral part.

The impact of science will be measured through regular monitoring of the provision of teaching and learning, planning, work completed on Showbie and pupil voice. Our aim is to show impact through the following:

- Children demonstrate a love of science work and an interest in further study and work in this field.
- Children retain knowledge that is pertinent to science with a real-life context.
- Children can question ideas and reflect on knowledge, using the key science vocabulary identified for each unit.

- Children can articulate their understanding of scientific concepts and be able to reason scientifically, using rich language linked to science.
- Children demonstrate an enthusiasm for mathematical skills through their science work, showing organised recording and interpreting of results.
- Children work independently and practically to investigate and experiment.
- Children achieve age related expectations in science at the end of their cohort year.
- Children have a curious desire within their science lessons and desire to want to learn more and remember more
- Children are able to make links across their curriculum e.g., apply science learning in geography lessons