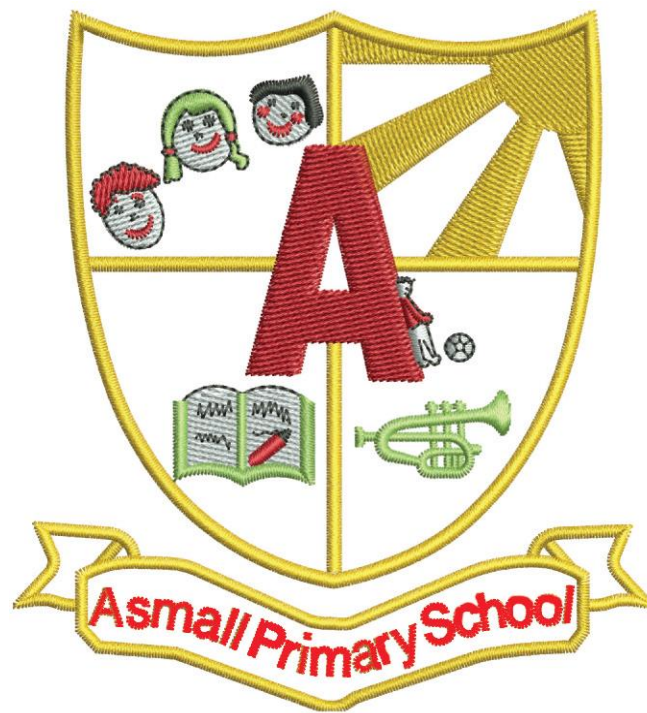


Asmall Primary School



SCIENCE POLICY October 2024

1. Curriculum Statement

Intent

At Asmall we want children to develop a sense of excitement, curiosity and fascination about the scientific world around them and give them the skills and opportunities to investigate and explore this. Our 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.
- Equipped with the scientific skills required to understand the uses and implications of science, today and for the future.

We encourage children to be inquisitive throughout their time at the school and beyond. We believe science encompasses the acquisition of knowledge, concepts, skills and positive attitudes.

Our Curriculum Strands



Implementation

Teachers create a positive attitude to science learning within their classrooms and reinforce an expectation that all pupils are capable of achieving high standards in science. As a school, we use Developing Experts as our scheme of work, with roots in our Asmall EYFS Planning Document. Our whole school approach to the teaching and learning of science involves the following;

- Science will be taught weekly. In EYFS, Science is taught through the key area of learning 'Understanding the World'. (In EYFS, children have continuous access to the outdoors. Teachers use the children's interests to drive their planning and activities that teach the children the Science elements of Understanding the World are planned for and spread over the course of the full year.) In KS1, Science will be taught for an hour per week and it will be recorded in topic blocks. In KS2, Science will be taught for two-hour per week and it will be recorded into their science books.
- Teachers provide opportunities for the children to problem solve and discover answers for themselves. They do this through careful planning that builds on class and group discussion, opportunities to ask questions, allowing children to apply their knowledge, collaborating about how they can find out answers for themselves and time to research to discover the answers. This curiosity is celebrated within the classroom. Planning involves teachers creating engaging lessons, often involving high-quality resources to aid understanding of conceptual knowledge. Teachers use precise questioning in class to test conceptual knowledge and skills, and assess pupils regularly to identify those children with gaps in learning, so that all pupils keep up.
- The children's knowledge and understanding increases, and they become more proficient in selecting, using scientific equipment, collating and interpreting results, they become increasingly confident in their growing ability to come to conclusions based on real evidence.
- Working Scientifically skills are embedded into lessons to ensure these skills are being developed throughout the children's time at Asmall and new vocabulary and challenging concepts are introduced through direct teaching. This is developed through the years, in-keeping with the topics.
- Teachers demonstrate how to use scientific equipment, and the various Working Scientifically skills in order to embed scientific understanding. Teachers find opportunities to develop children's understanding of their surroundings by accessing outdoor learning.
- Children are offered a range of extra-curricular activities; science trips and STEM visitors to complement and broaden the curriculum. These are purposeful and link with the knowledge being taught in class.
- Regular events, such as Science Week and home-school partnership promotes science learning at home. Science week, allows all pupils to explore Science more widely following the annual themes set by 'British Science Week'. Children access live lessons, take part in exciting age-appropriate investigations, research famous scientists and STEM visitors come into school to share their experiences with the children. These events often involve families and the wider community.

At Asmall, there is a balance between whole class teaching and group teaching, though the emphasis should be firmly placed on children having first-hand experience through a 'hands-on' approach. Science should be relevant and enjoyable, so it is encouraged that some sessions are taught outdoor.

At Asmall, there is a science area that contains many high quality resources that can be used for each year group. The resources include scientific models, measuring devices, electronic resources, books, posters and perishable goods. The resources can be adapted and used to support children's scientific enquiries for each Key Stage. Children have access to iPads or laptops throughout the year to extend their understanding. When possible, we invite outside agencies/workers in to share their knowledge and skills used in their profession.

Impact

The successful approach at Asmall Primary results in a fun, engaging, high-quality science education, that provides children with the foundations and knowledge for understanding the world. Our engagement with the local environment ensures that children learn through varied and first hand experiences of the world around them. Through the children's varied experiences they understand that science has shaped our lives and it will continue to shape our lives and that it is vital to the world's future prosperity. Children learn the possibilities for careers in science. Children believe they are scientists and they overwhelmingly enjoy science and this results in motivated learners with sound scientific understanding.

This statement reflects the schools values and philosophy in relation to the teaching of Science. It pays due regard to the need to eliminate unlawful racial discrimination, to promote equality of opportunity and to promote good relations between persons of different racial groups [Race Relations Act 2000 (amendment)]. It sets out the framework within which the whole staff, as appropriate, operates and provides outline information on planning, teaching, assessment, recording and reporting. It should be read in conjunction with the Year Group Content Specific Knowledge Organisers. Children in their first year of school [Reception] will work within the Early Years Foundation Stage and follow the Areas of Learning and Early Learning Goals in Science – Knowledge and Understanding of the World. From Year 1 onwards children will follow the Programmes of Study within the National Curriculum at both Key Stages 1 and 2.

EQUAL OPPORTUNITIES

All children have equal access to the science curriculum regardless of race, gender, creed or ability, in line with the school's policies on Special Educational Needs [SEN] and Gifted and Talented [GT] children. This policy pays due regard to the Disability Discrimination Act.

HEALTH AND SAFETY

Throughout all practical work in science consideration will be given to safety issues. Right from Foundation stage, children are taught to assess situations and possible dangers. From a young age, children gain the understanding of possible dangers of using apparatus incorrectly and identify dangers that can be found in everyday situations. Teaching staff and assistants ensure that the child is not at risk of being harmed. Asmall follow the 'Be Safe' in science document and staff will use this booklet, as reference as and when needed, as well as reviewing annually within a staff meeting. Risk Assessments are undertaken, where appropriate.

ASSESSMENT, RECORDING AND REPORTING

We use assessment to develop and inform our teaching.

- Topics commonly begin with an assessment of what the children already know, and what they would like to find out.
- We assess for learning (AfL). Children are involved in the process of self-improvement, recognising their achievements and acknowledging where they could improve.
- Class teachers mark each piece of work positively, making it clear verbally or on paper, where it is good, and how it can be improved.
- Class teachers will monitor the progress of all children in their class, identifying when support is needed.

- Assessment of National Curriculum levels take place at the end of each school year, and are updated at the end of each unit.
- Reports to parents are written once a year, describing each child's attitude to science, his/her progress in scientific enquiry and understanding of the context of Science.
- Assessment and reporting for EYFS children is done through the Foundation Stage Profile. Stickers and photographs are kept in their Learning Journeys and relate to specific Early Learning Goals.
- In accordance with national expectations, some children may be chosen to sit an optional science SAT.

ROLE OF THE SCIENCE SUBJECT LEADER

The Science subject leader is responsible for the preparation and implementation of the Science Policy and Scheme of Work in consultation with other staff.

MONITORING OF SUBJECT/EVALUATION OF TEACHING AND LEARNING

The Headteacher and Science Leader will be responsible for monitoring progress in science, by delivering CPD, conversations for colleagues and pupils, book looks and staff reflections. Feedback will be written up and shared with staff of 'ways forward'.