THE ARCHES
COMMUNITY PRIMARY SCHOOL

Science Policy

Aims

At The Arches, we aim to provide our children with a scientific curriculum that is accessible to all and achieves the following:

- Develops our children's scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics
- Develops our children's 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
- Equips our children with the scientific skills and knowledge required to understand the uses and implications of science, today and for the future
- Develops an enthusiasm and enjoyment of scientific learning and discovery

At The Arches, we encourage our children to be inquisitive throughout their time at our school and beyond. The science curriculum fosters a curiosity in our children about their universe and promotes respect for the living and non-living. We believe science encompasses the acquisition of knowledge, concepts, skills and positive attitudes. Throughout the programmes of study, our children will acquire and develop the key knowledge that has been identified within each unit and across each year group, as well as the application of scientific skills. We ensure that the Working Scientifically skills are built-on and developed throughout our children's time at our school so that they can apply their knowledge of science when using equipment, conducting experiments, building arguments and explaining concepts confidently and continue to ask questions and be curious about their surroundings.

Teaching and Learning

Teachers create a positive attitude to science learning within their classrooms and reinforce an expectation that all children are capable of achieving high standards in science. Our whole school approach to the teaching and learning of science involves the following:

- Science is taught through discrete weekly lessons, in planned and arranged topic blocks, which link, whenever possible, to our 'Read to Write' texts and/or our Creative Curriculum topics being studied in each year group. This strategy enables the achievement of a greater depth of knowledge.
- Through our planning, we involve problem solving opportunities that allow children to find out for themselves. Children are encouraged to ask their own questions and be given opportunities to use their scientific skills and research to discover the answers. 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 children regularly to identify those children with gaps in learning, so that all children keep up.
- We build upon the learning and skill development of the previous years. As 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 school career and new vocabulary and challenging concepts are introduced through direct teaching. This is developed through the years, in-keeping with the topics being studied.
- 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 and workshops with experts.
- Our children are offered a range of visits, trips and visitors to complement and broaden the science curriculum. These are purposeful and link with the knowledge being taught in class.
- Science is used to promote learning across many areas of the curriculum, including Reading, Maths, History, Geography, Design and Technology, RSE and SMSC

The Foundation Stage at The Arches deliver science content through the 'Understanding of the World' strand of the EYFS curriculum. This involves guiding our children to make sense of their physical world and their community through opportunities to:

- Explore creatures, people, plants and objects in their natural environments
- Observe and manipulate objects and materials to identify differences and similarities
- Use their senses to become aware of their environment

The children are encouraged to ask questions about why things happen and how things work and they are asked questions about what they think will happen to help them communicate, plan, investigate, record and evaluate findings.

Our children in EYFS are assessed according to the Development Matters attainment targets.

Inclusion

At The Arches, we teach science to all children, whatever their ability and individual needs. Science forms part of the school curriculum policy to provide a broad and balanced education to all children. Through our science teaching, we provide learning opportunities that enable all pupils to make good progress. We strive hard to meet the needs of those pupils with special educational needs, those with disabilities, those with special gifts and talents, and those learning English as an additional language, and we take all reasonable steps to achieve this.

Assessment

Children are assessed through formative and summative judgements - observing the children working, questioning and considering children's work and using Rising Stars Assessment Tests. Written or verbal feedback is regularly given to the child to help guide his/her progress. Each child's progress in science is continually monitored and tracked using Insight. This data is used to enhance every pupil's performance throughout their time within our school. A formal assessment of each child's attainment in science is made at the end of each school year and is reported to parents/carers in the child's annual school report.

Leadership

It is the role of the Science Lead to take the lead in policy development and help in the production of schemes of work designed to ensure progression and continuity in science throughout the school. They support colleagues in their development of detailed work plans, their implementation of the scheme of work and in assessment and record keeping activities.

Resources

We will use financial resources to build up an extensive collection of resources, artefacts and books to support the teaching and learning of science.

Health and Safety

Children's health and safety is foremost in all science planning and trips. Children are made aware of potential hazards and are taught to use all equipment safely. All science teaching and learning is in line with the Health and Safety policy.

Completed by H Probert

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