Archbishop Wake
CE Primary School

Aspiration- Community-Inclusion-Language

Aim high, believe; Fly high, achieve.

Science Curriculum Statement

Intent

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

At Archbishop Wake CE Primary School, we believe that Science should evoke curiosity, through awe and wonder, whilst pupils begin to make connections and understand the world around them. We have high expectations of all our pupils and aim to foster a love of scientific enquiry, which will fill children with aspiration for the future. Wherever possible, we aim to make links between what is taught in the classroom and what is observed in the community and world around them. Our inclusive Science lessons are designed to support learning at a variety of levels to ensure that all children reach their potential and develop a solid understanding of scientific processes. Alongside this, children will build upon specialist vocabulary and use technical terminology accurately and precisely to increase their overall understanding.

Working scientifically Year 1 and 2

- asking simple questions and recognising that they can be answered in different ways
- observing closely, using simple equipment
- performing simple tests
- identifying and classifying
- using their observations and ideas to suggest answers to questions
- gathering and recording data to help in answering questions.

Working scientifically Year 3 and 4

- asking relevant questions and using different types of scientific enquiries to answer them
- setting up simple practical enquiries, comparative and fair tests
- making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers
- gathering, recording, classifying and presenting data in a variety of ways to help in answering questions
- recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables
- reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
- using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions
- identifying differences, similarities or changes related to simple scientific ideas and processes
- using straightforward scientific evidence to answer questions or to support their findings.

Working scientifically Year 5 and 6

- planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary
- taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate
- recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs using test results to make predictions to set up further comparative and fair tests
- reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations
- identifying scientific evidence that has been used to support or refute ideas or arguments.

Implementation

Science at Archbishop Wake is delivered to Reception, through the Early Years Curriculum; Key Stage One and; Key Stage Two, following planning linked to the National Curriculum. Learning is tailored around the five enquiry types and incorporates all the appropriate working scientifically skills for each age range. Lesson design is structured to build vocabulary and scientific skills through a range of activities and investigations following guidance from PZAZ (Primary Science Advisory Service) and the ASE (Association of Science Education).

Impact

Through Science, children learn to question the world around them and experiment to find answers. The vision of our Science curriculum is to create life-long learners who are excited about developing their questioning and problem solving abilities within the three branches of Science (Biology, Chemistry and Physics). We will ensure they have the necessary skills to progress through Key Stage 3 and broaden their horizons to positively impact their lives and their community. Our aim is for children to recall the rich and varied learning experiences they have been provided with and know that each new concept provides a new, or builds on, an existing learning block. The values we encompass as a school, will enable learners to persevere and embrace challenge, which is something they are able to apply across the curriculum and take in to future learning. Assessment will include oral, practical and written responses from the children and records of work can be found in pupil's books. Parents / carers will be informed of progress through annual reports and at parent/carer consultations. There is a whole school monitoring, evaluation and review cycle. Each subject leader reviews their subject annually. An action plan is put in place and shared with staff.