

## Science Statement

### Intent

Science and Engineering are rapidly growing and important industries in the modern world. Even if children do not become scientists or engineers they will grow up in a world that requires scientific literacy and critical thinking skills. Science is all around us and helps children to make sense of the world. At Chadsmoor Infants and Junior School, we recognise the importance of Science and strive to maintain a high profile for the subject within our school. Our desire to enthuse and inspire children to develop a lifelong love of science is reflected in our curriculum and learning environments. We understand the importance of nurturing children's curiosity and giving them the opportunity for practical and real-life experiences to embed their understanding of the world around them. Every classroom has a science working wall display which reminds children of the key 'working scientifically' objectives. Teachers add key vocabulary and other useful prompts to support the unit of science being taught. The display of key vocabulary is essential to improve language acquisition. At Chadsmoor, we have strong school values (compassion, hope, aspiration, independence, resilience, enjoyment, forgiveness, honesty and respect) which underpin teaching across all subject areas. Within science, we ensure children have the opportunity for enjoyment and to develop their independence and resilience. We use Cornerstones scheme which is a basis for which our curriculum design in science is from. Each year group covers five topics which have been mapped out to ensure coverage of all the national curriculum objectives. By the end of year 6, we aim for children to have;

- developed scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics
- developed 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
- understanding which equips them with the scientific knowledge required to understand the uses and implications of science, today and for the future

## Implementation

Science lessons are taught regularly to the whole class using differentiation where required to support and challenge all learners. We aim to teach concepts through practical investigations wherever possible or give children hands-on experiences to embed their understanding. By the use of Cornerstones, this ensures good progression and sequencing to the way in which science is taught. The scheme provides teachers with objectives and creative investigation ideas. We use cross-curricular skills from English, Maths, Music and other subjects to ensure our lessons are engaging. Staff use science progression grids to know previous learning and the next steps. Staff use these grids to ensure clear progression and how to address gaps in learning.

## Impact

To monitor progress in learning, teachers make teacher assessments of class work at the end of each science unit using the science assessment grids for their year group. At the end of the year staff collate this information to make a final judgment on whether each pupil is working towards age expectations or has achieved age expectations. This is entered onto an online program, DCPRO. Teachers assess each child against the national curriculum objectives. To ensure consistency and progression, the subject leader monitors through a range of methods, such as; monitoring planning, analysing the coverage and gaps of the units of work selected by each year group, observing lesson delivery, monitoring books, pupil voice interviews and providing support and resources where required.

A scientist observes, questions, creates hypotheses, experiments, records data, and then analyses that data. All children can be scientists by following their own natural curiosity and at Chadsmoor Federation teachers help to facilitate these skills in order for children to flourish.