

SCIENCE

Intent

At Roundwood School and Community Centre, our science curriculum draws on the natural curiosity of our children by sparking their imaginations and nurturing inspired and confident young scientists.

Our curriculum is designed to accommodate individual learning needs, offering a range of differentiated activities, resources, and teaching strategies. We prioritise visual aids and hands-on experiments to enhance engagement and understanding. We intend for our learners to build on their scientific knowledge as they progress through the key stages and ultimately become as independent as possible with their scientific enquiry skills.

We believe in making science relevant and meaningful to our students' lives.

Implementation

Our science curriculum is designed to accommodate individual learning needs, offering a range of differentiated activities, resources, and teaching strategies. The learning environment and teaching strategies help to keep all children engaged and inspire them to want to investigate the world around them. Learning activities focus on developing our children to enquire, observe, plan investigations, select appropriate equipment and use it safely, measure, record and analyse results and communicate findings. Our main tool for supporting individual students and whole group work is Developing Experts and selecting the most appropriate Scheme of Work from the programme to boost learning.

Children are supported to develop their scientific enquiry skills in a safe and structured way. This is achieved through a variety of teaching strategies such as demonstrations, videos, experimental work and structured practical activities with adult support and modelling in the earlier key stages.

Students at KS3 have access to wider science knowledge and this is further embedded with the use of the Kerboodle Science teaching and learning resource that covers all aspects of the foundation Science knowledge and skills in preparation for the GCSE Science qualifications.

Towards the end of Key 3, students in year 9 prepare and develop revision habits using past paper questions to apply content learnt that will be needed for public examination. The knowledge gained in KS3 is further built upon in KS4, as students continue to develop skills of investigation and reporting,

gaining more understanding and confidence to address increasingly abstract and complex scientific issues and ideas.

All students will work within the framework of the AQA Biology GCSE level. Access to this learning is supported through the implementation of individualised intervention programmes, which are tailored to meet the needs of each student.

In years 10 & 11, students are given the opportunity to study AQA GCSE Single Science Biology for accreditation.

Enrichment activities are given throughout the year to enrich the science curriculum, for example Science museum trips, Science week activities, outreach visits and workshops.

Impact

Our science curriculum equips our students with problem-solving and critical thinking skills that are highly valuable in their everyday lives. They realise that science is not confined to a single context but is a tool for understanding and transforming the world around them. By engaging in scientific exploration, our students gain confidence in their ability to observe, question, experiment, and discover, empowering them to actively participate in and contribute to society.

By highlighting how science benefits their everyday lives, our curriculum ensures that our children see the practical relevance and value of scientific knowledge and skills. This understanding fosters a sense of empowerment, independence, and engagement, enabling them to navigate their daily lives with greater confidence and a deeper appreciation for the wonders of science.

When students leave Roundwood School and Community Centre, they will have made significant progress in their understanding of the work and be able to use their scientific knowledge and understanding to enhance their everyday lives.