

Trinity Church School

Science Intent Statement 25/26

At Trinity Church School we recognise the importance of Science in every aspect of daily life. Our science curriculum aims to prepare children for the wider world. We strive to ensure that the lessons we deliver achieve the three aims of the science national curriculum so that pupils understand the science and have the skills to engage with the knowledge and recognise where it fits in the wider world. We believe in the curious child and empower children to question the world around them and seek answers through immersive and practical learning whilst using their prior knowledge to investigate and extend their understanding. The knowledge they acquire is deepened through the use of essential scientific enquiry skills. We believe that through working scientifically our children will have a greater depth of understanding of the knowledge and will be the scientifically literate adults of the future. As one of the core subjects taught in Primary Schools, we give the teaching and learning of Science the prominence it requires.

It is our aim that children will:

- 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
- be equipped with the scientific skills required to understand the uses and implications of science, today and for the future.

Implementation/Breadth of Study

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. We follow the National Curriculum for our lessons. Throughout the programme of study, the children will acquire and develop the key knowledge that has been identified within each unit and across each year group. Key skills are also mapped for each year group and are progressive throughout the school. These too ensure systematic progression to identified skills end points which are in accordance with the Working Scientifically skills expectations of the national curriculum.

EYFS	KS1	KS2
Science in our EYFS is taught through the following areas: · Understanding the world · Communication and language · Mathematics · ELG- The natural world Key skills covered are: Noticing change/difference Experimenting with textures and materials. Exploring nature and seasons. Caring for living things, plants and animals and observe their changes over time. Naming parts of the body and senses and understand our needs. Understanding the affect humans have on the world.	· Everyday materials Including uses of everyday materials · Animals including humans Human sense organs (Y1) Animal offspring (Y2) · Plants Naming plants and trees (Y1) The need for water and light (Y2) · Seasonal changes · Living things and habitats	· Animals including humans Human nutrition (Y3) The digestive system (Y4) Changes in humans (Y5) The circulation system (Y6) · Light Reflections, shadows, seeing things(Y3) How we see (Y6) · Rocks · Forces and magnets Friction (Y3) Gravity (Y5) · Plants · Living things and habitats Grouping living things (Y4) Life cycles (Y5) Classification system (Y6) · States of matter · Sound · Electricity · Properties and changes of materials · Earth in Space · Evolution

- Progression in science is ensured through the design of our curriculum where knowledge and skill builds year on year as children revisit prior learning and broaden and deepen their scientific knowledge.
- Recall tasks form part of every lesson. 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 that skills are systematically developed throughout a child's science journey at Trinity and new vocabulary and challenging concepts are introduced progressively through direct teaching.
- 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.
- At the end of each unit a summative test is carried out and a 'pop' task is completed to gauge children's level of understanding.
- Each class has a science working wall, which children make regular use of. Key vocabulary is displayed and their scientific journey is made clear, allowing children to reflect on their previous learning.
- Trips and visits are tailored to extend and deepen children's knowledge.
- Visitors linked to topics are encouraged to come into school, to allow children to ask questions, be curious and broaden their understanding.

Impact/Assessment

As a scientist leaving Trinity, every child will:

- Have a sense of awe, wonder and curiosity in the science in the world around them and have the skills to investigate, experiment and discover for themselves
- Be confident to ask their own questions and use their scientific skills to try to discover the answers
- Understand, and be inspired by the fact, that science is ever-changing and science changes our lives
- Have experienced a wide range of inspiring engagement and enrichment activities including educational visits and expert visitors
- Have a firm grounding in the disciplines of biology, chemistry and physics and a secure bank of knowledge and scientific skills which they can build on in the next stage of their science education.

We measure the impact of our curriculum through the following methods:

- A reflection on standards achieved against the planned outcomes;
- A celebration of learning for each term which demonstrates progression across the school;
- Headstart summative assessments at the end of each unit
- Tracking of knowledge in pre and post learning quizzes;
- Pupil discussions and conferences to assess their understanding of key knowledge and vocabulary
- Book Monitoring
- Learning Walks including drop ins and formal lesson observations