Trinity Church School
Science Curriculum Guide

We follow the Programmes of Study found within the Science National Curriculum and our teaching and learning in this subject is built around these three key aims:

- 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

Our yearly overview shows the teaching sequence of key blocks for each year group.

Sequences of lessons are carefully planned to build on prior knowledge.

Our detailed long term overview includes prior knowledge children should know, sticky knowledge, key vocabulary and links to key scientists. Teachers carefully plan to ensure gaps are addressed.

Progression in Science

Term/ Year	1	2	3		4	5	6
1	Everyday materials Chemistry	Animals including humans (using our senses) Biology	Seasonal Changes Physics	Whole school science project	Plants Biology	Plants Biology	Animals including humans (categorisation) Biology
2	Animals, including Humans Biology	Use of Everyday Materials Chemistry	Living things and their habitats Biology		Living things and their habitats Biology	Plants Biology	Plants Biology
3	Rocks Chemistry	Forces and Magnets Physics	Light Physics		Animals, including Humans Biology	Plants Biology	Plants Biology
4	Sound Physics	States of Matter- Physics	Electricity Physics		Animals, including Humans Biology	Living things and their habitats Biology	Living things and their habitats Biology
5	Earth and Space Physics	Forces Physics	Forces Physics		Properties and changes of materials Chemistry	Living things and their habitats Biology	Animals, including Humans Biology
6	Light Physics	Electricity Physics	Evolution and inheritance Biology		Evolution and inheritance Biology	Living things and their habitats Biology	Animals, including Humans Biology

During term 4 the whole school takes part in science week as part of British science week

Our Science Vision and principles

At Trinity Church School, we empower children to become innately curious scientists, who question the world around them and seek answers through immersive and practical learning whilst using their prior knowledge to investigate and extend their understanding.

Science is taught in an engaging, explorative, and practical way that is hands-on, relevant and makes links to the real world.

Children have an embedded understanding and use of key scientific vocabulary.

Opportunities are provided for exploratory learning, through asking questions, making predictions, and carrying out investigations.

Children have a wide-ranging and deep knowledge of key scientific facts and principles that can be built upon and extended from.

Children are encouraged to work collaboratively, provided with opportunities for discussion, sharing of ideas and knowledge.

Science at Trinity is taught through weekly lessons.

We teach activities that match the objectives listed in the National Curriculums Statutory Requirements.

Ideas for these activities might come from:

The 'Notes and guidance (non-statutory)' section for that key block within the Programmes of Study
Hamilton Trust
The BBC Bitesize and/or BBC Teach
TAPS
Plan
The Education People (MNSP Trust)
Other appropriate resources located elsewhere

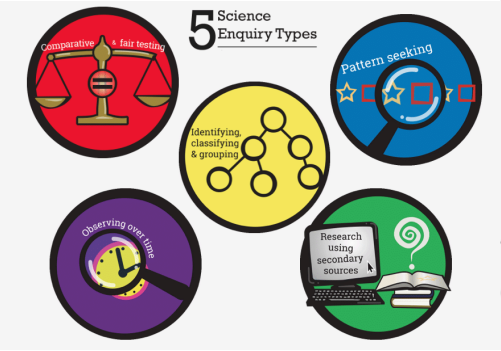
Our aim is to provide activities which encourage deep independent thought and purposeful explanation.

Lesson structure

Every lesson begins with a quick retrieval of prior learning. Questions for these might come from the long term plan, Explorify, BBC Bitesize, quizziz.com or the teachers own ideas.

New learning follows the retrieval and this forms the main part of the lesson.

We teach pupils to know about the unique processes of enquiry in science. Our' Big Ideas' for Working Scientifically (disciplinary content) are:

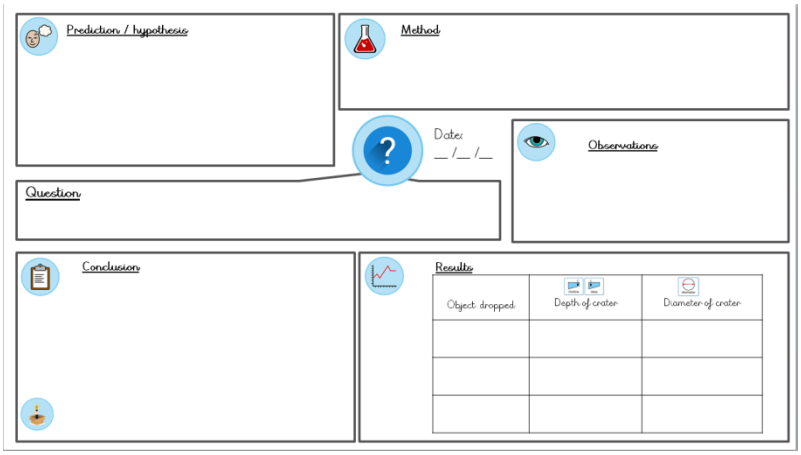


Several lessons within the planned sequence will cover key features of scientific enquiry, so that pupils learn to use a variety of approaches to answer relevant scientific questions.

Ideas for these lessons focusing on scientific enquiry could come from our enquiry overview, TAPS assessment, PLAN resources.

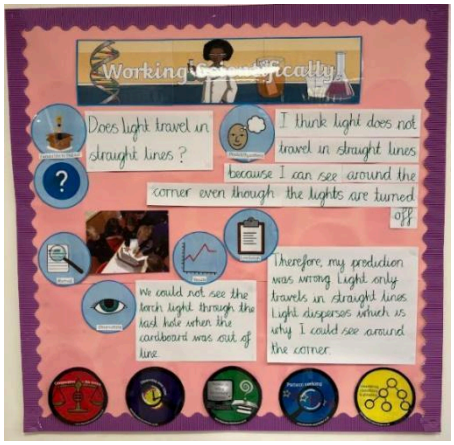
Teachers provide regular feedback for pupils and give them opportunities to respond with their Purple Pen of Progress. We believe it essential that pupils address any misconceptions and that they correct mistakes in the spelling of key scientific vocabulary.

Investigation logos are used throughout the school. We have progressive formats for recording investigations when working scientifically.



We also use planning boards to enable fair testing and independence.

Every class has a science working will with key vocabulary, the enquiry types, our investigation logos and current learning.



Our science curriculum is enriched with outdoor learning links.

Our school organises special events for our pupils to take part in and we promote science capital throughout the year. Some ways we do this include;

Trips such as we the curious
Visitors (dentists, vets, astronomers)
Scientist of the term
Whole school events (British Science Week)
Links with other schools
After school clubs

Assessment

At the start of each unit teachers elicit pupils current knowledge, they also find out what pupils want to learn more about to tailor the learning.

Working scientifically skills are assessed throughout the unit and by using the TAPS focussed assessment plans.

The teaching sequence for each term's key block finishes with the completion of a summative 'Head Start' assessment. This gives a standardised score to identify those children working below, at or above the expected standard.