



St Uny Church of England Academy

Teaching & Learning Principles: Science



Mission Statement:

We believe each child is special, unique and loved by God. We provide a broad, balanced and creative education within a stimulating, inclusive and safe environment, inspired by Christian faith and practice.

'Let your light shine before others...'

Matthew 5:16

Science Expectations:

- Each pupil has access to one hour of high-quality Science provision each week.
- Science units must follow the school's curriculum coverage plan and focus on the two strands of Science, as outlined in the National Curriculum: Working Scientifically & Scientific Knowledge.
- Opportunities for extended writing and the application of mathematical skills must be planned for in each Science unit.
- Marking and feedback in Science must adhere to the school's marking policy.
- By September 2019, all children will have individual Science books.

Science Coverage:

In order to ensure pupils access the coverage of the National Curriculum, the school has mapped out the curriculum coverage for each year group.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	Every Day Materials		Seasonal Changes		Animals Including Humans	Plants
Year 2	Uses of Everyday Materials		All Living Things & Habitats		Animals Including Humans	Plants
Year 3	Forces & Magnets	Light		Rocks	Animals Including Humans	Plants
Year 4	Sound	Electricity	States of Matter		Animals Including Humans	Living Things & Their Habitats
Year 5	Forces	Earth & Space		Properties & Changes of Materials	Animals Including Humans	Living Things & Their Habitats
Year 6	Light	Electricity	Evolution & Inheritance		Animals Including Humans	Living Things & Their Habitats

Working Scientifically Skills Progression:

- The school has set out a skills progression in order to ensure pupils are provided opportunities to apply their 'Working Scientifically' skills.
- 'Learning Powers' must also be identified, discussed and evidenced during investigation work.
- 'Science Houses' must be used as the scaffold for planning and evaluating an investigation.

Science Units – Teaching & Learning Expectations:

Teachers can decide to teach their Science content weekly or as a block. In order to ensure learners experience a consistent approach to the teaching of Science, the teaching of Science blocks must include:

- An initial assessment of pupil knowledge and identification of areas of interest – using a KWL grid in individual books.
- Each lesson must have a clear WALT and WILFs stating the desired pupil outcomes for the lesson.
- Each unit must include at least one in depth investigation. The investigation must enable pupils to apply their 'Working Scientifically' skills and use the 'Scientific Enquiry Grid' as a scaffold for scientific working.
- An assessment of pupil knowledge and skills must be completed independently at the end of a unit.

Working Walls:

Each classroom must have a Science working wall and should include the following:

- A class KWL grid to show the learning process throughout the unit (fixed).
- A large 'Scientific Enquiry Grid' specific to the year group of the class (fixed).
- 'Working Scientifically' vocabulary and questions (fixed).
- Unit-specific vocabulary & images.

Assessment:

Science is to be assessed using the school's Science Assessment Framework.

- An assessment grid for each year group must be in the back of Science books and statements highlighted when learners demonstrate independent application.
- Pupils in Year 2 will be assessed in line with the Interim Assessment Framework for KS1.
- Pupils in Year 6 will be assessed in line with the Interim Assessment Framework for KS2.