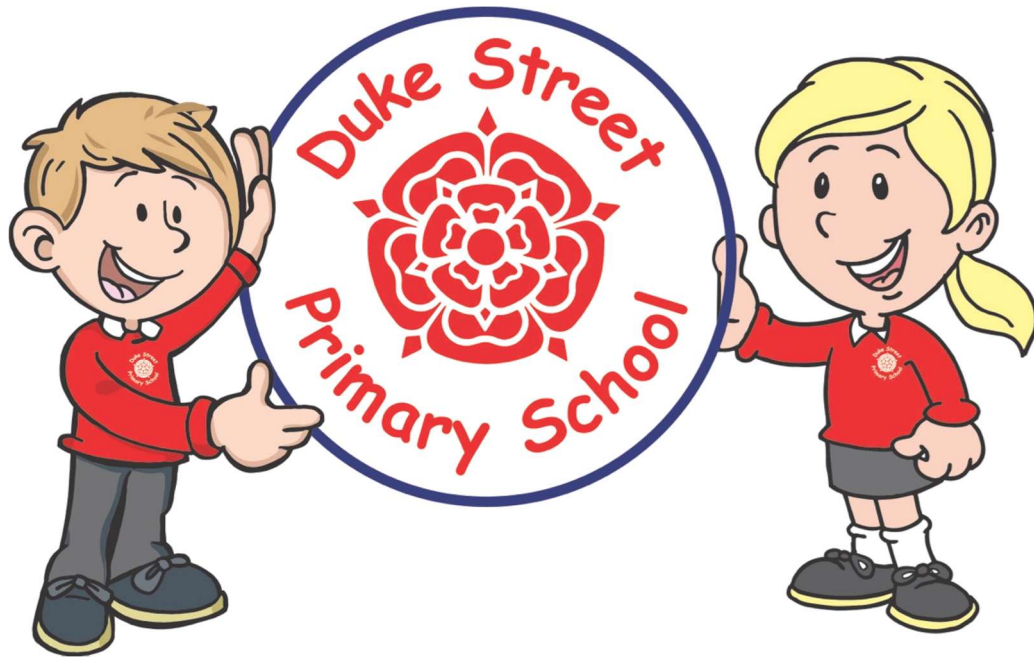




Duke Street Primary School

Science Policy

Subject Lead: Patrick McGuinness

Updated: July 2026



Duke Street Primary School

Science Policy Document

(Aligned to the National Curriculum for England 2014 - Key Stages 1 and 2)

School Name: Duke Street Primary School

Policy Owner: Science Subject Leader

Approved By: Patrick McGuinness

Date Approved: July 2026

Review Date: July 2027

Science Policy

1. Rationale

At **Duke Street Primary School**, we believe that science provides children with the foundations for understanding the world around them. Through practical enquiry, investigation and the development of scientific knowledge, pupils are encouraged to ask questions, explore ideas and develop a lifelong curiosity about the natural and physical world. Our vision is to create an ethos of **EPIC** science (**E**ngaging **P**ractical **I**nvestigative and **C**ollaborative).

Science teaching enables pupils to develop knowledge and understanding of biology, chemistry and physics whilst fostering critical thinking, problem-solving and investigative skills. This policy reflects the requirements of the National Curriculum for England.

[\[gov.uk\]](#), [\[assets.pub...ice.gov.uk\]](#)

2. Intent

Our science curriculum aims to:

- Develop scientific knowledge and conceptual understanding through the disciplines of biology, chemistry and physics.
- Develop understanding of the nature, processes and methods of science through different types of enquiry.
- Equip pupils with the scientific knowledge required to understand the uses and implications of science today and in the future.
- Encourage curiosity, questioning and independent thinking.

- Develop scientific vocabulary and communication skills.
- Promote respect for the environment and understanding of sustainability.
- Ensure all pupils can achieve, regardless of background, need or prior attainment.

These aims reflect those identified within the National Curriculum for Science. [\[gov.uk\]](#), [\[assets.pub...ice.gov.uk\]](#)

3. Statutory Requirements

This policy is based upon:

- The National Curriculum in England: Science Programmes of Study (Key Stages 1 and 2).*
- The Equality Act 2010.
- SEND Code of Practice.

The statutory science programme is delivered to all pupils from Year 1 to Year 6. [\[gov.uk\]](#), [\[assets.pub...ice.gov.uk\]](#)

**It is anticipated that a new curriculum for science will take effect in 2027 - This policy will be updated when required to reflect this new curriculum.*

4. Curriculum Implementation

Science is taught through carefully sequenced units which build knowledge progressively and revisit key concepts.

The curriculum includes both:

- **Working Scientifically**
- **Scientific Knowledge and Conceptual Understanding**

Working scientifically is embedded within all science teaching and should not be taught as a separate unit. [\[primarysci...ine.org.uk\]](#), [\[assets.pub...ice.gov.uk\]](#)

5. Working Scientifically

Throughout primary school pupils will develop skills in:

Key Stage 1

Pupils will:

- Ask simple questions.
- Observe closely.
- Perform simple tests.
- Identify and classify.
- Use observations and ideas to answer questions.
- Gather and record data.

Lower Key Stage 2

Pupils will:

- Ask relevant questions.
- Set up simple practical enquiries.
- Make systematic observations.
- Gather, record and present data.
- Use results to draw conclusions.
- Identify differences, similarities and changes.

Upper Key Stage 2

Pupils will:

- Plan scientific enquiries.
- Control variables where appropriate.
- Take accurate measurements.
- Record data using tables, graphs and diagrams.
- Report findings.
- Use evidence to justify conclusions and predictions.

[\[assets.pub...ice.gov.uk\]](#), [\[gov.uk\]](#)

6. National Curriculum Coverage

Due to our mixed-age class structure, Duke Street Primary School operates a two-year rolling curriculum cycle. Pupils in Years 1/2, 3/4 and 5/6 follow the same programme over a two-year period, ensuring that all National Curriculum objectives are taught and fully covered without repetition.

Key Stage 1

Year 1

Children will study:

Plants

- Identify common wild and garden plants.
- Identify deciduous and evergreen trees.
- Label basic plant structures.

Animals Including Humans

- Identify common animals.
- Classify animals.
- Identify basic body parts.
- Investigate the senses.

Everyday Materials

- Distinguish between objects and materials.
- Identify materials and their properties.

Seasonal Changes

- Observe weather patterns.
 - Observe changes across the four seasons. [[assets.pub...ice.gov.uk](#)]
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Year 2

Living Things and Their Habitats

- Explore living, dead and never-alive things.
- Identify habitats and microhabitats.
- Understand simple food chains.

Plants

- Observe seed and bulb growth.
- Understand requirements for growth.

Animals Including Humans

- Basic needs for survival.
- Healthy lifestyles.
- Life cycles and offspring.

Uses of Everyday Materials

- Compare suitability of materials.
- Investigate changing shape of materials.

[\[assets.pub...ice.gov.uk\]](#)

Lower Key Stage 2

Year 3

Plants

- Functions of plant parts.
- Water transportation.
- Life cycle of flowering plants.

Animals Including Humans

- Nutrition.
- Skeletons and muscles.

Rocks

- Types of rocks.
- Fossils.
- Soil formation.

Light

- Light sources.
- Reflection.
- Sun safety.

Forces and Magnets

- Forces.
 - Magnetic attraction.
 - Magnetic materials. [[assets.pub...ice.gov.uk](#)]
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Year 4

Living Things and Their Habitats

- Classification.
- Environmental change.

Animals Including Humans

- Digestive system.
- Teeth.
- Food chains.

States of Matter

- Solids, liquids and gases.
- Evaporation and condensation.
- Water cycle.

Sound

- Vibrations.
- Pitch and volume.

Electricity

- Simple circuits.
- Conductors and insulators. [[assets.pub...ice.gov.uk](#)]

Upper Key Stage 2

Year 5

Living Things and Their Habitats

- Life cycles.
- Reproduction in plants and animals.

Animals Including Humans

- Human development and ageing.

Properties and Changes of Materials

- Material properties.
- Dissolving.
- Separation techniques.
- Reversible and irreversible changes.

Earth and Space

- Movement of Earth and planets.
- Day and night.

Forces

- Gravity.
- Air resistance.
- Water resistance.
- Friction.
- Mechanisms. [[assets.pub...ice.gov.uk](#)]

Year 6

Living Things and Their Habitats

- Classification systems.
- Micro-organisms.

Animals Including Humans

- Circulatory system.
- Diet, exercise and lifestyle.
- Transport of nutrients and water.

Evolution and Inheritance

- Adaptation.
- Natural selection.
- Fossil evidence.

Light

- Reflection.
- Refraction and shadow formation.

Electricity

- Circuit symbols.
- Investigating voltage and components. [[assets.pub...ice.gov.uk](#)]

7. Teaching and Learning

Teachers will:

- Provide practical, hands-on investigations.
- Promote scientific discussion and reasoning.
- Use accurate scientific vocabulary.
- Encourage questioning and prediction.
- Build knowledge progressively.
- Adapt learning to meet individual needs.
- Make meaningful cross-curricular links where appropriate.

Planning draws on a range of high-quality sources, including Oak National Academy and PSTT, which use evidence-informed approaches and recognised best practice to support effective teaching and learning.

8. Assessment

Assessment will be ongoing and include:

Assessment for Learning

- Questioning
- Observation
- Discussion
- Pupil self-assessment

Summative Assessment

- End of unit assessments
- Retrieval activities
- Knowledge quizzes

Progress will be tracked termly and reported annually to parents.

Teachers will update assessment trackers on a unit by unit basis. The Science Lead will be responsible for collating and analysing these assessments for both: Working Scientifically and Scientific Knowledge and Conceptual Understanding. Teachers will be given highlighted target areas to focus their support children's needs. These needs will be discussed in 'pupil progress' meetings to with Science Lead and teachers.

9. Inclusion

All pupils will have access to a broad and balanced science curriculum.

Teachers will:

- All lessons will be designed to ensure everyone can access and achieve in science.
 - Differentiate learning appropriately.
 - Scaffold tasks where necessary.
 - Provide challenge for higher-attaining pupils.
 - Make reasonable adjustments for pupils with SEND.
 - Ensure equal participation regardless of gender, ethnicity, religion or disability.
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10. Health and Safety

Teachers will:

- Follow school health and safety procedures.

- Conduct risk assessments where appropriate.
- Ensure safe use of equipment and materials.
- Teach pupils safe working practices.

Reference will be made to CLEAPSS guidance where applicable.

11. Monitoring and Evaluation

The Science Subject Leader will:

- Monitor planning and curriculum coverage.
 - Review pupil outcomes.
 - Conduct learning walks and book observations.
 - Support staff development.
 - Evaluate resource provision.
 - Produce an annual action plan.
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12. Resources

The school will provide:

- Age-appropriate scientific equipment.
 - Investigation resources.
 - Outdoor learning opportunities.
 - Digital resources where appropriate.
 - Access to enrichment opportunities including visitors, workshops and educational visits.
 - Science subject Lead will be responsible and accountable to a budget to ensure the correct resources are available when required.
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13. Policy Review

This policy will be reviewed annually by the Science Subject Leader and Senior Leadership Team to ensure continued compliance with National Curriculum requirements and school improvement priorities.

Signed (Science Leader): P.McGuinness

Date: July 2026