

SPOTLIGHT ON SCIENCE 2026



This half term, we are shining a light on Science — but what does science look like at Barkisland?

How do we inspire curiosity?

How do we help children think like scientists?

How does learning build from Nursery all the way to Year 6?

This mini newsletter will give you an overview of science at Barkisland.

Our Vision

At Barkisland, science is for everyone. We believe every child is a scientist. We want our children to be curious, confident and resilient learners who ask questions about the world around them. Science at our school is practical, inclusive and vocabulary-rich.

We make sure children:

- Develop strong scientific knowledge
- Build enquiry skills over time
- Use ambitious scientific vocabulary
- Feel confident to ask their own questions

As one of our children said:

“We don’t just read – we actually explore things like real scientists!”

Learning Through Enquiry

Science at Barkisland is active. Children investigate, observe, test and explore.

From Nursery children planting seeds and noticing changes...

To Year 6 pupils setting up fair tests and recording repeat measurements...

...our children learn by doing.

In Year 1, children might ask:

“How do you know your animal is a mammal?”

By Year 6, their thinking becomes more precise:

“Does the shadow shrink or grow? If I stand in the same place will it change?”

We explicitly teach children how to:

- Ask scientific questions
- Make predictions
- Plan and carry out fair tests
- Record results in different ways
- Draw conclusions using evidence

Each year, the learning becomes deeper and more independent.



Clear Progression from Nursery –Y6

Our curriculum is carefully sequenced so knowledge builds over time.

For example, in Plants:

- In EYFS, children observe plants and plant seeds.
- In Key Stage 1, they name parts of plants and describe changes.
- In Lower KS2, they learn about pollination, seed dispersal and photosynthesis.
- In Upper KS2, they classify plants and explain life cycles in depth.

Children often tell us:

“Each year, the science gets harder, but it builds on what we already know.”

This progression applies across all areas of science including Animals, Materials, Forces, Electricity, Light, Sound and Earth & Space.

Our Science Scheme

At Barkisland, we follow the Plymouth Science Scheme of Learning to support the delivery of our curriculum.

This scheme provides a clear, progressive structure from EYFS to Year 6 and ensures full coverage of the National Curriculum. It carefully sequences knowledge while strongly developing the Working Scientifically objectives.

Through this approach, children learn not just scientific facts, but how to think and work like scientists. Over time they are taught to:

- Ask purposeful questions
 - Make predictions using prior knowledge
 - Plan and carry out fair and comparative tests
 - Measure accurately using appropriate equipment
 - Record and present data clearly
 - Interpret results and draw evidence-based conclusions
 - Evaluate their methods and suggest improvements
- By Upper Key Stage 2, children can independently plan investigations, control variables and explain how reliable their results are — demonstrating real scientific maturity.

Practical, Hands-On Learning

We use a wide range of resources to bring science to life:

- Real equipment (thermometers, magnifying glasses, force meters)
- Practical investigations
- Non-fiction books
- Digital tools such as iPads
- Outdoor learning opportunities

In Year 3, children dissect flowers using real tools. In Year 6, they choose their own equipment to investigate how shadows change.

One pupil said:

“It was fun choosing which equipment to use for our shadow investigation.”



Assessment in Science

We use careful assessments to understand what children know and what they need next.

This includes:

- Eliciting prior knowledge at the start of units
 - Careful questioning during lessons
 - Observation of practical skills
 - End-of-unit quizzes
 - Scientific explanations and written outcomes
 - Tracking against year group objectives
- Assessment ensures children make progress in both:
- Substantive knowledge (what they know)
 - Disciplinary knowledge (how they work scientifically)

Enrichment & Wider Opportunities

We celebrate National Science Week and take part in themed days and cross-curricular projects.

We promote inclusion and ensure:

“Anyone can be good at science!”

We want every child to leave Barkisland with:

- A secure foundation in scientific knowledge
- Confidence in enquiry skills
- A love of asking questions
- The belief that science is for them

How You Can Support at Home

You don't need specialist equipment to nurture a scientist at home!

You can:

- Encourage your child to ask “why?” and “how?”
 - Visit parks and notice seasonal changes
 - Cook together and talk about changes in materials
 - Watch the night sky and discuss the moon
 - Read non-fiction books together
- Curiosity starts with conversation.

If you would like to find out more about Science at Barkisland, please visit our website or speak to your child's class teacher.

We are incredibly proud of the curiosity, resilience and enthusiasm our children show in science every day.

