William Austin Junior School

Policy for Science

Rationale

New:

At William Austin Junior School, science encourages curiosity, exploration and discovery. We use White Rose Science to support the teaching of the National Curriculum through carefully sequenced small steps. Children develop their knowledge of biology, chemistry and physics alongside the skills needed to work scientifically. Practical experiences, discussion and enquiry help children explain the world around them and apply their learning.

Aims

The purpose of science education is to: -

- develop scientific strategies and skills;
- develop attitudes appropriate to working scientifically;
- develop basic scientific concepts;
- apply scientific ideas to real life problems;
- stimulate curiosity;
- work co-operatively and communicate scientific ideas to others;
- use simple and safe apparatus;
- relate to the interest and everyday experience of the pupils;
- help pupils to understand their world;
- develop responsibility and good positive attitudes towards their environment;
- extend the learning environment of our pupils via The Willow Garden and local areas;
- develop an understanding of the relationship of scientific ideas to spiritual, ethical and moral dilemmas.

Organisation

New:

Science is organised using the White Rose Science schemes of learning for Years 3–6, as reflected in the school's agreed curriculum overview. Learning is sequenced into blocks and small steps that build on prior knowledge and develop scientific understanding over time. Working scientifically skills are taught within science content and revisited across year groups. Teachers adapt the pace and resources in response to assessment while maintaining curriculum coverage and progression.

Teaching and Learning

Teaching follows the White Rose Science small-step sequence within the school's agreed curriculum plans. Teachers use the guidance to identify key scientific knowledge, working scientifically skills, vocabulary and potential misconceptions.

• Children have opportunities to work independently and collaboratively with their peers.

• Lessons include explanation, discussion and purposeful practical activities linked to the science topic and intended learning.

• Teaching and resources are adapted to meet children's needs through modelling, visual support, vocabulary prompts, appropriate scaffolding and additional challenge.

• Learning intentions and success criteria are shared with children in clear, child-friendly language.

• Scientific vocabulary is explicitly taught and revisited. Children are encouraged to use it when discussing ideas, explaining their thinking and recording their findings.

• Previous learning is revisited regularly to help children make connections and develop secure scientific understanding.

• Children are taught to select and use appropriate equipment safely, make careful observations and take measurements with increasing accuracy and independence.

• Where appropriate, children ask questions, make predictions, plan and carry out enquiries, record results and draw conclusions based on evidence. They are encouraged to consider whether their findings support their predictions.
• Across the curriculum, children experience the five types of scientific enquiry: observing over time; identifying, classifying and grouping; pattern seeking; comparative and fair testing; and research using secondary sources.
• Children communicate their ideas and findings through discussion, drawings, diagrams, tables, graphs and written explanations, as appropriate to the learning.
• Where appropriate, children use non-fiction texts and suitable online resources to research scientific questions and develop their understanding.
• Teachers use questioning, discussion, observations and pupils' work to check understanding throughout lessons. Assessment informs the pace of teaching, addresses misconceptions and identifies where further support or challenge is needed.

Cross Curricular Links

We believe that science should not be taught in isolation but will naturally draw from, and contribute towards, other areas of the curriculum; in particular English, Maths, Computing, Design Technology, Geography, History and Music.

Inclusion

1. Multicultural

The curriculum will take account of the rich cultural and ethnic diversity within the school, and planned to make it equally relevant to all children, regardless of race or creed. Tasks set will consider the need for support of EAL children. The tasks will be set at appropriate levels. Verbal responses and discussions in pupil's mother tongue with staff, will be counted as relevant and appropriate.

2. Special Educational Needs and disabilities

Children with special educational needs and disabilities will be encouraged to take part in all scientific activities with support from class teachers and teaching assistants and by the use of appropriately targeted levels of work. Children will be encouraged to report their findings verbally and diagrammatically. Children will have the opportunity to participate fully in the science curriculum through effective planning, teaching, appropriate support and assessment.

3. More able children

Staff will ensure that there are opportunities for more able children to secure motivation and concentration via an effective learning environment, setting targets for learning, where appropriate.

4. Gender

No child will be excluded from science on the basis of gender. Subject matter resources and teaching methods are such that every child will be given the opportunity to enjoy, participate and contribute. As in all subjects the children are taught that every member of the class has something of value to offer.

5. Looked After Children

Staff will ensure that Looked After Children's well being and learning are positively promoted within the science curriculum.

Health and Safety

The children will be taught to be aware of their own safety, that of their peers and their environment when working scientifically within the class and the school grounds. Where a risk is identified control measures will be included as part of the lesson plans in each year group.

Planning

New

Collaborative planning is based on the National Curriculum and the White Rose Science schemes of learning. Year-group teams use the school's agreed overview and medium-term plans to ensure consistent coverage across classes. Teachers refer to the relevant small-step guidance when preparing lessons, including the scientific knowledge, working scientifically skills, vocabulary and misconceptions to be addressed. Assessment informs any adaptations, additional support or further challenge. Practical resources and safety considerations are identified before teaching.

Outdoor Learning Environment
All children will be encouraged to observe changes in the outdoor learning environment. This will involve regular visits to our Willow Garden. The children will explore the natural habitats that are established in this area and use it to provide children real-life experiences to enhance learning across all science topics. A vegetable patch will also encourage awareness and understanding of the world around us, and the benefits of home grown produce.

Assessment, Recording and Reporting

Assessment is ongoing and considers both scientific knowledge and working scientifically skills. Teachers use questioning, discussion, observations of practical activities and pupils' recorded work to identify understanding and misconceptions. White Rose Science assessment opportunities and resources support teacher assessment where appropriate.
Assessment informs subsequent teaching, including revisiting concepts, providing additional support and extending learning. Children receive feedback that helps them understand their successes and next steps. Teacher judgements draw on a range of evidence and inform school records and reporting to parents.

Resources
Science resources are in a locked central store, enabling access by all members of staff. The equipment available will be reviewed and updated as appropriate and staff informed of any new resources. The resources will be assessed at regular intervals to ensure that they are appropriate to teaching the National Curriculum.

White Rose Science schemes of learning and available teaching and assessment resources support lesson preparation and delivery. Teachers select and adapt resources to meet the intended learning and pupils' needs. Practical equipment, books, outdoor learning and other suitable resources enrich the planned curriculum.

Monitoring and Evaluation

The Science Co-ordinator monitors curriculum coverage, progression and the quality of teaching and learning through planning reviews, learning walks, pupil voice and samples of pupils' work. Monitoring considers how effectively White Rose Science supports the development of scientific knowledge and working scientifically skills.
Findings inform staff support, professional development, resource provision and future curriculum planning. The agreed curriculum overview, medium-term plans and progression documents are available to staff in the shared school folder.

This policy will be monitored and reviewed by the Science Co-ordinator every two years.

Policy updated: October 26

Staff responsible: Science Co-ordinator

This policy was ratified by the Governing Body on: 14th October 2026

Signed on behalf of the Governing B (signature)

M. Kashif - Chair of Governors (printed)