



POLICY DOCUMENT

Title: Science
Reference and Source Document : No Source Document – Written and updated by Science Subject Leader
The key purpose: Supporting teaching and learning of Science
Lead Staff Responsibility: Science Subject Leader – Annabel Morgan STEM Curriculum Team
Governing Body Responsibility : Curriculum Team
Reviewing Cycle and next date: Two years. Next date Autumn 2025
Approved by Leadership Team : November 2023
Approved by Governing Body : 20.11.2023

Inspire, Nurture and Achieve

We believe, as Jesus did, that in our happy, purposeful and welcoming **Christian school** and pre-school **all** are **valued, encouraged** and **cared for**:

- **Inspire** the school community to think and feel positively about themselves and others.
- **Nurture** each child and adult so that they grow with others in a secure and happy environment; where they enjoy a wealth of opportunity and experience a love of learning.
- A place where **achievements** are celebrated and expectations are high for all.

This is underpinned through the understanding that in Jesus, **all** are welcome and unique and have a God given purpose and place in the world. Jesus inspires us that **all** people can flourish.

Matthew 19 v14

Jesus said, "Let the children come to me, and do not hinder them,
for the kingdom of heaven belongs to such as these."

We aim to:

Inspire a positive approach to life and learning;

*Value and **nurture** each child as an individual: developing **resilience, independence, and an understanding** of what they bring to the world;*

*Create a rich, stimulating environment where **achievements** are celebrated and **team work and co-operation** are expected;*

*Promote **high expectations** and **self-confidence** for each individual;*

*Ensure each child strives towards **excellence** supporting those who find learning difficult and challenging the most able children;*

*Develop and foster **motivation** for learning and **enthusiasm** for life;*

*Promote a sense of **belonging** and build outstanding **relationships** between school, home, church and the wider community.*

*Help every person understand their **unique purpose** and **place** in **God's world**.*

1. Introduction:

This policy has been established to replace the Science Policy 2022. It affects all year groups in the school and Green Lane Pre-School. Through Science we will endeavour to support the school/Pre-School aims as listed in the school/Pre-School prospectus.

Intent Statement:

Our intention is that our curriculum **extends opportunity, raises aspiration**, opens children's eyes to the **world beyond their immediate environment** and enables every child to live a **happy, healthy and productive life**.

We provide **first hand learning experiences** that allow all children to **develop interpersonal skills** and **build resilience**. Our cross-curricular approach enables our children to make meaningful links with their learning. We aim to encourage a **growth mindset** in every child as it is often through mistakes we learn the most.

Our curriculum is focused on the **development of children's knowledge and skills** across all primary subjects with the aim of ensuring pupils are ready for the next stage of their learning. Families are key partners in developing children's **attitudes, knowledge, skills and experiences**.

2. A good Scientist at St Barnabas/Green Lane Pre-School will ...

- Have a positive attitude towards science.
- Develop transferable skills
- Have good knowledge and understanding of key scientific concepts
- Be able to carry out scientific investigations and solve scientific problems
- See science as a human activity and to appreciate the relationship between science and society
- Be able to transfer knowledge and skills to other curriculum areas
- Be able to design and carry out investigative work
- Have acquired a relevant body of scientific knowledge
- Be able to use scientific terminology to reason why and articulate facts clearly
- Be able to share and communicate knowledge.

3. Agreement date of Policy:

The policy was developed by the Curriculum Leader for Science, reviewed by SLT November 2023 and approved by Governors 20.11.23

4. Aims:

The aim of Science/Understanding the World within the school/Pre School is to support and increase all children's access to excellent teaching, leading to exciting and successful learning

The Science curriculum at St. Barnabas will;

- Enable pupils to develop the skills of hypothesizing, inferring ,problem solving, predictive reasoning, modelling and analysing evidence.
- Foster the cross curricular links between Science, Maths and other subjects.
- Develop the practical skills of science, with due regard to safety.
- Give all learners the transferable skills and knowledge they will need to be well rounded individuals.

Children ‘Understanding the World’ curriculum at Pre-School will;

- Encourage children to notice and talks about, detailed features of objects in their environment, including similarities, differences, patterns and change.
- Encourage children to comment and asks questions about aspects of their familiar world.
- Develop talk about why things happen and how things work.
- Develop an understanding of growth, decay and changes over time.
- Develop an awareness of how to care and show concern for living things and the environment.

deserve:

- To be set appropriate learning challenges.
- To be taught well and be given the opportunity to learn in ways that maximise the chances of success.
- To have support to help tackle the specific barriers to progress they face.
- To have a scientific awareness of the world they live in.

5. Curriculum Development and Implementation

Our curriculum is designed so that the **subject specific skills** are **built upon** within a **cross-curricular theme** or context each term. Our St. Barnabas curriculum is based on the National Curriculum; we have designed this to **build on prior learning** from EYFS to the end of KS2, ensuring consistency and progression across the whole school.

Topics are designed with the **outcomes for pupils** in mind, working towards a **final project or end point**. Teaching is carefully planned to meet the needs of all the children.

Our curriculum consists of a variety of **class based, outdoor learning and wider enrichment experiences** and opportunities.

The curriculum overview for the whole schools shows the coverage of the main topics caught by each year group.

(See Year plan for Science)

At Green Lane Pre-School and in Reception at St Barnabas we follow the EYFS Curriculum under the strand ‘Understanding the World’. This involves guiding the children to make sense of their physical world and their community through opportunities to explore, observe and find out about people, places, technology and the environment.

6. Teaching and Learning:

The curriculum is delivered by class teachers. In all classes work is differentiated in order to give appropriate levels of work to each ability group. Where appropriate these groups/individual children are supported by Teaching Assistants/Support Assistants. Children are taught in class groups from pre-school through to Year 6.

At Pre-School the curriculum is planned by Pre-School leaders and overseen by the EYFS Lead. Activities are delivered by all practitioners who consider their key children's individual needs, interests and stage of development. 'Understanding the World' is developed through planned purposeful play and through a mix of adult-led and child-initiated activities.

Impact: How well are our pupils learning the content within our curriculum?

From their different starting points, we aim that all children will make strong academic progress and be socially and emotionally confident.

We aim to build and embed a secure knowledge, understanding and skillset, so that children retain their learning, attain highly and are fully prepared for secondary school. This includes strong oral and written communication skills and the ability to listen and show both respect and tolerance for the views of others.

The impact of our curriculum is for all St Barnabas pupils to have pride in all that they do, always striving to do their best. They will demonstrate the ability to persevere when they encounter challenge. That they will become confident in their own unique talents, skill set and interests to prepare them well for their life in Modern Britain.

7. Inclusion and Equal Opportunities:

The Science/Understanding the World curriculum is concerned with the learning and participation of all students. Teaching is planned with this in mind and Teaching Assistants/Key Workers are available to support all students, ensuring good progress is made.

All children are provided with equal access to the Science /Early Years Foundation Stage curriculum. We aim to provide suitable learning opportunities regardless of gender, ethnicity or home background.

8. Roles and Responsibilities:

The Science Coordinator is responsible for:

- overseeing the Science curriculum/Understanding the World
- monitoring the learning and teaching
- ensuring the assessment is relevant and informative
- making purchasing decisions
- ensuring all staff are appropriately trained
- keeping up to date with developments in Science

- observing Science lessons
- monitoring / supporting Science planning
- preparing policy documents
- advising colleagues and helping to develop expertise
- liaising with the County specialists, Head Teacher, Deputy and Governors as appropriate
- contributing to staff INSET training

In addition, regular reports are made to the Governors.

9. Subject Monitoring / Evaluation of provision:

The subject leader is responsible for monitoring and evaluating curriculum progress. This is done through; books trawls, planning scrutiny, lesson observations, staff discussions, pupil voice interviews and audits of resources.

10. Pupil Assessment:

- Reception and Green Lane Pre-School regularly input data throughout the year and attainment and progress can be shown through regular data analysis and pupil progress meetings.
- All 17 Areas of Learning, including Understanding the World, are assessed against the Age Bands and Early Learning Goals (ELG's) at the end of the year.
- Green Lane Pre-School and Reception use 'Tapestry' to record significant observations and milestones to use as evidence for assessments.
- Teachers are involved in the continuous, informal assessment of the children's scientific development and achievements during all science activities through observing , listening, discussing, asking questions and evaluating written work.
- Years R-6 use Itrack to assess children's attainment.

11. Health and Safety In Science:

It is the responsibility of the class teacher/practitioners to ensure a safe working environment. Children should be made aware of any risks and dangers and understand the importance of working safely at all times. Frequent reminders need to be given to reinforce safe working procedures. The children can also be involved in establishing Science safety rules for themselves. Where appropriate, risk assessments will be carried out by either the coordinator or individual teachers.

Please refer to the school/ EYFS Risk assessment guidelines Health and Safety Policy for further information.

12. Liaison:

To ensure consistency and progression in the Science curriculum throughout the school we:

- Meet together in separate phase meetings to discuss current issues, look at planning and moderate.
- Meet in Core subject teams.
- Meet in STEM teams.
- Discuss Science requirements in whole staff meetings.
- Attend training in key stage or whole staff groups.
- Ensure science assessments are entered into Itrack termly.
- EYFS lead liaises with Pre-School weekly and monitors planning, provision and data.

13. Home / school links:

We see the relationship with parents as very important in supporting their child's learning. We involve the parents in their child's learning by:

- Giving the Parents in Reception and Green Lane Pre-School opportunity to see and send in observations from home to support their child's profile throughout the year.
- Providing regular parent's evenings which give them verbal information on their child's progress and their targets for the future.
- Green Lane Pre-School provides 'Next Steps' targets to parents regularly and verbal information given through Key Worker system. An end of term report is given to all school age children at the end of year.
- Providing half termly curriculum letters informing the parents on the areas of the curriculum that are being covered.
- Providing an end of year report which outlines progress and attainment.

14. Date to be reviewed *Autumn 2025*