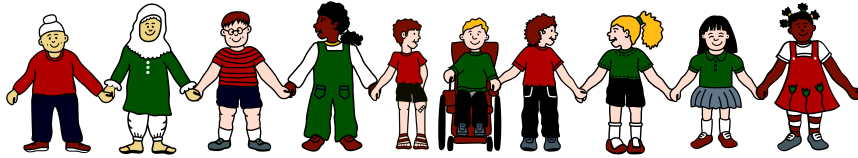


# THE GILES NURSERY AND INFANTS' SCHOOL



## Mathematics Curriculum Leader Report for Governors

2023/2024

**Leaders with responsibility: Kaye Simmons and Tania Dalton**  
**Governor: Professor Nick Rogers**

**Curriculum intent:**

The aims of mathematics at The Giles Nursery and Infants' School are to:

- Ensure that all children have a secure understanding of mathematical concepts
- Promote enjoyment of learning through practical activity, exploration and discussion
- Promote confidence and competence with numbers and the number system
- Develop mathematical fluency and be able to move from one concept to the other, applying learned skills
  - Develop the ability to solve problems through problem-solving and reasoning in a range of contexts
  - Develop a practical understanding of the ways in which information is gathered and presented
  - Explore features of shape and space and develop measuring skills in a range of contexts
  - Understand the importance of mathematics in everyday life.

The curriculum is designed and adapted to meet all pupils needs and enables them to learn more, remember more and do more as they progress through the school. Through quality first teaching staff enable children to learn and practise skills so that they can progress through school and beyond with confidence in their mathematical abilities.

Staff ensure that mathematical skills are built into all areas of the curriculum. This enables the pupils to make links between mathematical skills and other skills taught. Pupils develop a range of skills using the Concrete, Pictorial and Abstract method (CPA). They have opportunities to explore mathematical concepts by first using manipulatives to build a mathematical model. Pupils then move on to representing that model as an image and finally they write the calculation that corresponds to the model and image. Talk is an important part of the curriculum, with children encouraged to use mathematical vocabulary to explore, explain or reason their way through problems. Working collaboratively with their peers encourages children to make connections and apply their skills. All these techniques form part of the mathematics mastery approach and enable pupils to have a secure understanding of mathematical concepts.

Curriculum leaders have produced a monitoring schedule that allows them to review the mathematics curriculum, complete lesson visits, book scrutiny, and conduct moderations. Photographic evidence and pupil voice are collected throughout the academic year. The aim is to offer support to staff and identify further training needs. This schedule can be seen in Appendix 1.

Part of the curriculum leader role is to work with our school governors. A yearly report is provided and discussed to examine progress that is being made across the subject. This enables governors to have a greater understanding of the subject and to hold subject leaders to account. Governors complete learning walks, scrutinise the whole school improvement plan and attend regular meetings with curriculum leaders.

### **Curriculum journey**

The curriculum journey for mathematics in our school lists the required key vocabulary and the progression of learning from a child starting in our Nursery to reaching the Key Stage 1 endpoint at the end of Year 2. The curriculum journey is reviewed annually and published on our school website.

### **Curriculum implementation**

All children are assessed in the autumn term for strengths and weaknesses in mathematics as they begin the new academic year. The assessments are analysed by the teaching staff and interventions put in place to bridge identified gaps. This is linked to Pupil Premium Champion interventions, IMPs and target-setting across Early Years and Key Stage 1. Targets are shared with parents twice a year.

Mathematics lessons are timetabled at the beginning of every year to ensure sufficient time and coverage. These are enhanced with further fluency, retrieval and problem-solving practice opportunities. Teachers include mathematics activities in homework, often including daily life applications of skills, or Purple Mash (Our online learning platform) activities. Children also have the opportunity to practise their fluency in their own time through their Numbots subscription.

Working walls for mathematics are present in each classroom. These support pupils with their learning. They contain key vocabulary and visual modelling of key concepts. Speaking frames for the sequence of learning are displayed for pupils to utilise as part of their learning. The display gives pupils a visual cue to what they have been learning and what they will be learning in a lesson sequence.

### **Mathematical Vocabulary**

Staff have worked collaboratively to update and clarify the key vocabulary needed for each year group. It is detailed in the curriculum journey and is accessible through the school website where parents and other stakeholders can access the information. Key mathematical terminology is made clear on lesson planning documentation alongside the previous years' key vocabulary. Sentence stems are also detailed in planning. Vocabulary and sentence stems are shared explicitly with all teaching staff so all are equipped to support the children to use them in their mathematics work when explaining a calculation or process. Children are given lots of opportunities to use the vocabulary through talk partner activities and group work.

## **Impact**

The autumn and spring data for the 2023-2024 academic year shows that pupils are making progress in mathematics. Pre-teaching of concepts is now securely embedded and takes place to enable disadvantaged and vulnerable groups to catch up in their understanding of concepts where they have gaps. These groups are being tracked carefully due to attainment being below the national average. Pupil Premium champions work with these pupils on a weekly basis. Teachers work closely with the PPG champions to ensure that the work the pupils complete links to the work that is taking place in the classroom.

Learning walks in KS1 evidence that teachers are assessing and adapting the planning to meet their pupils' needs. Scaffolding and the use of CPA make it clear that all pupils' needs are being planned for and met. Pupil voice gives clear indications that pupils enjoy their learning and are secure in their understanding of mathematical concepts. This understanding is evidenced in pupils' books and in photographs.

## **What has been done to improve standards?**

This year mathematics is a clearly identified strand in the School Development Plan: "Continue to ensure that all pupils, including those with special educational needs and disabilities (SEND) and the lowest 20%, achieve as highly as possible across all areas of the curriculum, with a particular focus on mathematics, Early Years and foundation subjects."

In the academic year 2023-2024, we adopted a new scheme of learning for mathematics across the school from Reception to Year 2. White Rose Mathematics is a well-established and comprehensive scheme, developed by teachers and closely aligned with the National Curriculum expectations. It has also been developed to ensure children can think flexibly in their problem-solving, preparing them for assessment style questions. It breaks down the teaching of the core concepts into small steps to prevent the creation of knowledge gaps. It is a tightly developed sequence, with a spiral progression as the child journeys through the mathematical curriculum from Early Years to the end of Key Stage 1. All teaching staff attended a training session in the autumn term on how to use the scheme most effectively, including how to adapt it to the needs of your pupils.

This is our first year using the scheme. Our next step will be to amend our school curriculum journey accordingly, taking into account how to make it bespoke to our school cohort, and ensuring we are meeting the needs of all learners, ensuring our Nursery pupils are well represented and prepared for the start of their White Rose Mathematics learning in Reception. Our curriculum journey is developed with all teaching staff contributing and details how skills progress over the period of time that pupils attend The Giles Nursery and Infants' School. These link to the National Curriculum objectives and clearly detail how all pupils progress through the curriculum to the defined end point.

We have introduced a focus on fluency practice, with the Fluency Bee programme in use in Years 1 and 2, and regular fluency activities in Reception and Nursery. All teaching staff received training on Fluency Bee in the autumn term.

In order to help the lowest achieving 20%, we have introduced DANS. This is a specific intervention scheme to target gaps in number and counting knowledge. Training was provided to teaching assistants in the autumn and spring terms on how to implement DANS. Teachers identify pupils who may need it through the autumn assessments. Those pupils are then assessed again to pinpoint the specific learning gap before the DANS intervention begins. It is very practical as an intervention, so pupils feel engaged and can see how they are using mathematical skills.

A standard number formation pattern is being implemented across the school, from Nursery through to the end of Year 2, to ensure that all children are able to record their calculations and mathematical workings with correct representation of numerals.

The curriculum leaders are attending a regular series of training sessions provided by Herts For Learning on 'Leading Primary Mathematics in Current Times'.

In the autumn term, the curriculum leaders presented to the governing board the intentions for the year, the introduction of White Rose Mathematics and the use of CPA in lessons. This ensured that all the governors were informed of significant advances we are making in mathematics teaching and learning in our school.

A Maths Week is planned for the Summer term, to celebrate mathematics in the school and engage and enthuse all our pupils.

A book look in the autumn term was an opportunity to see how all year groups are recording mathematics learning, including in Key Stage 1 through the use of the White Rose mathematics workbooks. It also enabled a discussion about how to evidence any 'keep up' consolidation work or 'catch up' work. The book look will be repeated in the summer term, to see what lessons we can learn from this year and implement in the next academic year.

Lesson observations have taken place, with feedback discussions taking place with the staff member observed. These discussions take the format of a discussion around what went well and what a next step might be to continue to improve our mathematics teaching for all pupils. This helps to inform action planning for the following year as well as enabling any quick response actions to take place.

## **Appendix 1 – Monitoring Schedule**

Autumn	Spring	Summer
Bespoke White Rose Maths training (Jane Brown)	Book look Reception	SLT book look
Curriculum inset with class teachers and SLT	Curriculum discussion with class teachers and SLT	Monitor maths resources (EYFS)
Book look Year 1 and 2	Both leads attend the Hfl course - Developing effective mathematics subject leadership (DEMSL)	Curriculum update with class teachers and SLT
Both leads attend the Hfl course - Developing effective mathematics subject leadership (DEMSL)	Monitor maths resources (CPA)	Both leads attend the Hfl course - Developing effective mathematics subject leadership (DEMSL)
Monitor maths resources (tabletop displays)	EYFS learning walk and Pupil voice	Maths week- collect pupil voice
KS1 learning walk and collect pupil voice	Year 2 observation	Reception Observation
Mathematics targets to go home to parents	Governor's meeting	End of year pupil voice
Update photo file	Mathematics targets to go home to parents	Subject Meeting with Giles' Junior School
Assessment review	Assessment review	Update photo file
		Assessment review

### **Next steps: Actions for 2024-2025**

Review and reshape the curriculum where necessary across the school to ensure coverage, challenge and progression.

Embed White Rose as a scheme and fluency practice in all year groups.

Continue to monitor and incorporate changes made in the new EYFS framework to ensure curriculum coverage.

Continue with a robust monitoring schedule, including:

- observations of teaching and learning
- work sampling
- moderation of teacher assessments
- pupil voice
- monitoring of working walls and tabletop displays.