



Savile Town CE (C) Infant and Nursery School

Mathematics Policy 2025

'At our school, we celebrate our faith, diversity and provide a safe environment where our children are happy to learn. We are kind, caring and respectful to others. We aim to inspire future generations of our school and community to become lifelong learners.'

Introduction

At Savile Town CE (C) Infants and Nursery School we aim to ensure that the mathematics curriculum we provide will create children who are independent, inquisitive and confident. We will ensure the environment is stimulating and that adequate resources are provided so that the children can develop a deeper understanding mathematical concepts and varied fluency. Learning skills are an important aspect of mathematics but such skills are only a means to an end and should be taught and learned in a context that provides purpose and meaning.

Intent

At Savile Town CE (C) Infant and Nursery our intent for mathematics is to teach a rich, balanced and progressive curriculum using Mathematics to reason, problem solve and develop a fluent conceptual understanding in each area. Teachers and the Governing body are updated regularly about developments of our frequently reviewed curriculum. Teachers are supported in their roles ensuring confidence in delivering the key skills that they are required to teach. Lessons are child focused and are built upon practical sessions based on the concrete, pictorial and abstract methods.

Our curriculum allows children to make sense of the world around them, relating the patterns of mathematics to everyday life. Our policies, resources and schemes support our aims for example calculations policy, White Rose Maths and NCTEM Teaching for Mastery.

The mapping of Mathematics across our school shows clear progression in line with age-related expectations. Pupils are challenged in each lesson in fluency and apply this knowledge by completing silver and gold challenges (KS1) which target problem solving and reasoning skills. Children identified with SEND or underachieving are supported by adults, revisiting learning where needed such as completing independent tasks.

Mathematics in school is enhanced by our individual class working walls, continuous provision and also in collaboration with our federated school Thornhill Lees CE (VC) Infants and Nursery.

We aim to:

- To foster a positive attitude to mathematics as an interesting part of the curriculum.
- To develop the ability to think clearly and logically, with confidence, flexibility and independence of thought.
- To develop deeper understanding of mathematics through the process of enquiry and investigation.
- To develop an understanding of the connectivity of patterns and relationships within mathematics.
- To develop the ability to apply knowledge, skills and ideas in real life contexts outside the classroom, and become aware of the mathematical uses in the wider world.
- To develop the ability to use mathematics as a means of communicating ideas.
- To develop the ability and inclination to work both alone and cooperatively to solve mathematical problems.

Implementation

Updates and intentions are regularly shared with staff to ensure consistency across the classes. Resources and equipment are audited and up to date, all staff have had the opportunity to submit orders to me and these were fulfilled. The resources cupboard also holds whole-school resources/ The resources are selected to support the delivery of the White Rose Scheme as they allow us to use models and images to support learning in each area. The resources are used within each year group for consistency but it also allows the children to become familiar with them and access them independently where needed and to support learning in different contexts.

Staff have several materials to refer to for planning including the White Rose Scheme, and Twinkl and NCETM these are used in Early Years and KS1 to allow children to be exposed to different styles of learning materials in relation to fluency and problem solving. Staff also implement the schools agreed calculations policy. Formative assessments are important for our school where we focus on challenge questions, extension works, mini plenaries and discussion with peers. There is a coherent progression seen in planning within each unit and activities in the EYFS develop knowledge and skills of key learning. Mathematical vocabulary is written within each classes planning and this is

shared with the children to encourage them to use it during discussions. Parents are informed or and encouraged to be involved in Mathematics in school through class dojo updates, homework, parent's evening and yearly reports. Teachers are also available before and after school if parents wish to talk about their children's progress.

Teachers develop key fluency through the formal teaching of mastering number, practicing skills, repeating and reinforcing and revising which is included in lesson plans. Children are given time to practice skills and their calculation strategies including time for children to discuss the effectiveness of their strategies. We give feedback to the children using going for gold and think for pink. Children are given time to act upon any work that is underlined in pink to ensure that the children are well informed and that they are making visible progress.

Oracy is a fundamental skill that is used in all aspects of the curriculum as it is essential to learning and time is planned into lessons for this, tasks that are set suit different children and their learning preferences. Investigation tasks ensure that children follow lines of enquiry and develop their own ideas, justifying and proving their answers. Children work both collaboratively and independently solving problems, which require them to persevere and develop resilience,

What is teaching for mastery?



FLUENCY INVOLVES:

- Quick recall of facts and procedures.
- The flexibility and fluidity to move between different contexts and representations of mathematics.
- The ability to recognise relationships and make connections in mathematics.

Representation and structure

Mathematical structures are the key patterns and generalisations that underpin sets of numbers – they are the laws and relationships that we want children to spot. Using different representations can help children to 'see' these laws and relationships.

Variation

Procedural variation – This is a deliberate change in the type of examples used and questions set, to draw attention to certain features.

Conceptual variation – When a concept is presented in different ways, to show what a concept is, in all of its different forms.

Mathematical thinking involves:

- Looking for pattern and relationships
- Logical Reasoning

- Making Connections

COHERENCE

Teachers should develop detailed knowledge of the curriculum in order to break the mathematics down into small steps to develop mastery and address all aspects in a logical progression. This will ensure deep and sustainable learning for all pupils.

As a result of teaching and learning in mathematics, our aim is that pupils will be able to meet the key aims of the National Curriculum for maths.

- In our school we aim to promote children's **curiosity** and enable them to safely take risks and learn from first hand experience wherever necessary
- Our primary focus is to support the children to become fluent in mathematical **understanding** from the most basic level so that they can build upon their own understanding.
- We aim to enable our children to develop conceptual understanding, **recall** of number facts and patterns and apply their knowledge rapidly and accurately. • We aim to promote children's ability to **reason** through opportunities to discuss their thinking and understanding. This emphasis may result in less written work but much deeper understanding.
- We promote **problem solving** and solution finding. This is not only true in mathematical learning but in almost all aspects of school life.
- We aim to support children to make **progress at their own pace**. Often misconceptions cause greater difficulties at a later stage of learning. We will promote smaller group learning opportunities whenever possible and encourage children to revisit their thinking to ensure they feel secure in their understanding and able to move confidently on to next steps and challenges.

Early Years

Mathematics within the EYFS is developed through purposeful, play based experiences and will be represented throughout the indoor and outdoor provision. The learning will be based on pupil's interests and current themes and will focus on the expectations from Development Matters / Early Years Outcomes. Mathematical understanding can be developed through stories, songs, games, imaginative play, child initiated learning and structured teaching. Pupils work will be recorded through observations which can be found on Evidence Me or in the children's work books. Where appropriate children will complete more formal work.

KS1

The lesson format we follow is a mental/oral starter, a main teaching activity and a plenary. If necessary small groups of children will be removed from the main activity to complete work to target their individual needs, this includes extension and supported tasks. The teaching of mathematics provides opportunities for;

- Group work
- Paired work
- Individual work
- Whole class teaching

Within mathematics' lessons, through careful planning and preparation, pupils engage in:

- The development of mental strategies
- Written methods
- Practical activities and games
- Investigational work
- Problem solving
- Mathematical discussions
- Consolidation of basic skills and number facts
- Working with computers as a mathematical tool.

We use the appropriate mathematical terminology in our teaching and children are also expected to use it in their verbal and written explanations. Mathematics is used in other areas of the curriculum wherever appropriate. This helps to expand and consolidate mathematical concepts and using maths in a purposeful way in real contexts helps children to realise that mathematics is important in the real world.

We set work that is challenging, motivating and encourages the pupils to talk about what they have been doing.

Impact

The impact of our mathematics curriculum is that children build up skills in small progressive steps and that they understand the relevance of what they are learning in relation to real life. We have an environment where Mathematics is fun and that we are allowed to make mistakes because the journey of finding the answer is more important. Our Mathematics books have a range of activities showing evidence of fluency, problem solving and reasoning. Our feedback and interventions are supporting children to be the best the children can be which ensures the greater proportion of children are on track. Children are able to have a go at activities and have access to a range of resources which they can choose independently. Children are developing skills in being articulate and are able to verbally, pictorially and in written form reason well. Our school standards are, we moderate books both internally and externally including LA moderators and the children are achieving well. Children's work and progress is assessed from three aspects at our school – long term, medium term and short term. Data is entered onto a spreadsheet to ensure we can monitor the progress of year groups, specific group of children such as gender and individual children.

Equal Opportunities

All children have equal access to the mathematics curriculum. This is monitored by analysing pupil performance throughout the school to ensure that any difference between groups is minimised and a plan of action devised to improve this.

We incorporate mathematics into a wide range of cross-curricular subjects and seek to take advantage of multi-cultural aspects of mathematics. In the daily mathematics we support children with English as an additional language in a variety of ways. E.g. repeating instructions, speaking clearly, emphasising key words, using picture cues, playing mathematical games, encouraging children to join in counting.

Reviewed January 2025