Mathematics Policy

Thomas Jolyffe Primary School

To be the best we can be!

Approved by: Caroline Price	**Date:** September 2025
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Mathematics Policy

Aims and objectives

Mathematics teaches us how to make sense of the world around us, through developing a child's ability to calculate, to reason and to solve problems. It enables children to understand and appreciate relationships and pattern in both number and space in their everyday lives. Through their growing knowledge and understanding, children learn to appreciate the contribution made by many cultures to the development and application of mathematics.

The aims of mathematics are:

- to promote enjoyment and enthusiasm for learning, through practical activity, exploration and discussion;
- to promote confidence and competence, with numbers and the number system;
- to develop the ability to solve problems, through decision-making and reasoning in a range of contexts;
- to develop a practical understanding of the ways in which information is gathered and presented;
- to explore features of shape and space, and develop measuring skills in a range of contexts;
- to understand the importance of mathematics in everyday life.

Teaching and learning style

The school uses a Teaching for Mastery learning style. Our principal aim is to develop children's knowledge, skills and understanding in mathematics. We do this through a daily lesson that has a high proportion of whole-class episodic and group direct teaching with the intention to take the children from 'novice to expert'. During these lessons, we encourage children to ask, as well as answer, mathematical questions. Each lesson is based on fluency, reasoning and problem-solving skills. Children have the opportunity to use a wide range of resources and work in a concrete, pictorial or abstract manner as appropriate. Children use ICT in mathematics lessons where it will enhance their learning through modelling ideas and methods. We encourage the use of ICT through homework also. We encourage the children to use and apply their learning in everyday situations through the presentation of open problems, which require the children to make connections between mathematical areas.

In all classes there are children of differing mathematical ability. We recognise this fact and provide suitable learning opportunities for all children by encouraging children to engage with

the task using methods appropriate to their understanding. We achieve this through a range of strategies utilising small-step tasks. We allow the children to lead their learning: seeking methods to solve problems. This is carried out through group work and by organising the children to work in pairs on standard and non-standard examples. We use classroom assistants to support some children and to ensure that all children are able to access the work using methods appropriate to their understanding. 'Catch up' sessions taught after the maths lesson target those children who were working towards the day's objective. These short sessions go over misconceptions and teach the objective in a short small group session.

Mathematics curriculum planning

The maths curriculum is progressive. Our medium-term plans follow White Rose schemes of learning, which are sequenced to move the children from where they have been to where they need to be.
Through repetition and development of skills and creating links between mathematical areas, we intend for the children to know more, do more and remember more in order to make progress. Details of the main teaching objectives and small-steps to achieve these are provided for each half term on the White Rose website. We ensure an appropriate balance and distribution of work across each term. These schemes are available on the White Rose website. Flashback 4 resources are used at the start of each lesson to ensure that children are reminded of previous learning on a daily basis. True/false questions are used in lesson planning to ensure children have the opportunity to explain and extend their thinking.

Class teachers use White Rose for the teaching of mathematics. These slides give the objectives and stem sentences for each lesson, which are broken down into small steps using episodic teaching. The maths lead monitors the slides for each year group with a focus on small steps learning. Teachers use the teaching notes and annotate these to show provision made for SEND learners in their class. White Rose Fluency Bee resources are also available to support learners needing further support. GD learners are extended through deepening questioning and tasks to allow further development of understanding.

In Year 2 to 6, two-minute multiplication fluency booklets are used at the start of lessons to support learning in this area.

The Foundation Stage

We teach mathematics in our EYFS classes and aim to have the children ready for a standard numeracy lesson each day by the end of the year. Mathematical Development is also covered during both family and group times throughout the week. As the class is part of the Foundation Stage of the National Curriculum, we relate the mathematical aspects of the children's work to the objectives set out in Development Matters, which underpin the curriculum planning for children aged three to five. We give all the children ample opportunity to develop their understanding of number, measurement, pattern, shape and space through varied activities that allow them to enjoy, explore, practise and talk confidently about mathematics.

Homework

All children are given at least one piece of mathematical homework per week on Maths Shed. Teachers may supplement this with paper homework at times. Times Table Rock Stars may also be used as homework. This will be set on Thursday for completion by the following Tuesday.

Contribution of mathematics to teaching in other curriculum areas

English

Mathematics contributes significantly to the teaching of English in our school, by actively promoting the skills of reading, writing, speaking and listening. For example, we encourage children to read and interpret problems in order to identify the mathematics involved. The children explain and present their work to others, during plenary sessions. Younger children

enjoy stories and rhyme that rely on counting and sequencing. Older children encounter mathematical vocabulary, graphs and charts when using non-fiction texts.

Computing

Children use and apply mathematics in a variety of ways, when solving problems using ICT. Younger children use ICT to communicate results, with appropriate mathematical symbols. Older children use it to produce graphs and tables when explaining their results, or when creating repeating patterns, such as tessellations. When working on control, children use standard and non-standard measures for distance and angle. They use simulations to identify patterns and relationships. In both Key Stages, slides with links to mathematical software programs are used in each daily maths lesson.

Personal, social and health education (PSHE) and citizenship

Mathematics contributes to the teaching of personal, social and health education, and citizenship. The work that children do outside their normal lessons encourages independent study and helps them to become increasingly responsible for their own learning. The planned activities that children do within the classroom encourage them to work together and respect each other's views. We present older children with real-life situations in their work on the spending of money.

Spiritual, moral, social and cultural development

The teaching of mathematics supports the social development of our children through the way we expect them to work with each other in lessons. We group children so that they work together, and we give them the chance to discuss their ideas and results.

Other cross curricular areas

A themed week is organised each year to promote maths through the school. This involves home projects, as well as activities in school, within maths lessons. At the end of the week an invitation is sent out to the parents to ask them to come into school for an afternoon. The children are taught and offered experiences of different mathematical projects over the week. In addition to this, workshops will be run for maths across the school on a yearly basis. This involves parents coming in to work with their child within a practical maths lesson, such as making maths games, to take home and play. Business links with banks such as Nat West allow the children to access maths in real life situations.

Teaching mathematics to children with special educational needs

At our school we teach mathematics to all children, whatever their ability. Mathematics forms part of the school curriculum policy to provide a broad and balanced education to all children. Through our mathematics teaching we provide learning opportunities that enable all pupils to make progress. We do this by setting suitable learning challenges through small steps learning tasks and responding to each child's different needs. Assessment against the National Curriculum allows us to consider each child's attainment and progress against expected outcomes.

When progress falls significantly outside the expected range, the child may have special educational needs. Our assessment process looks at a range of factors - classroom organisation, teaching materials, teaching style, learning style, etc. - so that we can take some additional or different action, to enable the child to learn more effectively. This ensures that our teaching is matched to the child's needs.

Any child working below age related expectations will have a Toolkit. The Toolkit may include, as appropriate, specific interventions relating to mathematics. Greater Depth children are also identified throughout the school. A wide range of resources are provided to suit the needs of all children.

We enable pupils to have access to the full range of activities involved in learning mathematics. Where children are to participate in activities outside the classroom, for example, a maths trail, we carry out a risk assessment prior to the activity, to ensure that the activity is safe and appropriate for all pupils.

Assessment and recording

We assess children's work in mathematics from three aspects (short-term, medium-term and long-term). We make short-term assessments daily, which we use to help us adjust our daily lesson plans. These short-term assessments are in the form of a stamp in the books to show whether children have met the teaching objectives for a lesson. These inform Catch up sessions to target children who need 'close the gap' tasks. At the end of each week, an assessment slip for the week's objectives is stuck in books and these are assessed by both children and adults. These slips help inform the medium-term assessments. White Rose end of unit assessments are also used at the end of each topic.

We make medium-term assessments in the form of formative assessments each half term. These measure progress against the year group objectives, and to help us plan the next unit of work and whether more coverage is needed on a particular objective.

We make long-term assessments during the Autumn, Spring, and Summer terms in the form of summative tests or practical tasks which are used to inform teacher assessments.

Resources

There are a range of resources to support the teaching of mathematics across the school. All classrooms have a number line or 100 square, interactive whiteboard and access to a wide range of appropriate small apparatus. Maths vocabulary posters (linked to the 4 operations) are on display in all classrooms. A range of software is available to support work with the computers.

Monitoring and review

Monitoring of the standards of children's work and of the quality of teaching in mathematics is the responsibility of the Mathematics leader. The work of the Mathematics leader also involves supporting colleagues in the teaching of mathematics, being informed about current developments in the subject, and providing a strategic lead and direction for the subject in the school. The Mathematics leader gives the Headteacher an annual summary in which she evaluates strengths and weaknesses in the subject and indicates areas for further improvement. The Head teacher allocates regular management time to the Mathematics Lead, so that she can review samples of children's work and undertake lesson observations of mathematics teaching across the school. A named member of the school's governing body is briefed to oversee the teaching of Mathematics. This governor meets regularly with the subject leader to review progress.

Reviewer: C PRICE TJP
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