



Mathematics Policy

At Oakhill Primary School, we **intend** for our children to be mathematically fluent at each stage of their primary education, being able to apply this fluency into problem solving and reasoning activities across a variety of contexts. We **intend** to equip our children with a solid mathematical knowledge and understanding that they can build upon in the next stage of their education.

Our aims:

- to promote enjoyment of mathematical learning through practical activity, exploration and discussion;
- to develop 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 mathematical information is gathered and presented;
- to explore features of shape and space, and to develop measuring skills in a range of contexts;
- to help children understand the importance of mathematics in everyday life;
- to promote maths across the curriculum.

Implementing the Teaching and Learning of Maths

Our maths curriculum design is based on the White Rose schemes of work. The long and medium term plans provided by White Rose have been adapted and rearranged in order to suit the needs of the children in our school. Class teachers design short term planning with resources taken from a variety of sources or, if more appropriate, produced internally. Maths lessons are designed to provide children with numerous opportunities to discuss and explain their learning, alongside completing fluency questions and questions that enable the children to reason and problem solve. Discussion in maths is of paramount importance and we believe that providing children with these opportunities helps to embed their understanding of mathematical concepts.

The school's calculation policy ensures that there is a clear progression of skills when children learn how to add, subtract, multiply and divide. Whilst skills are allocated to a year group, the mastery curriculum allows and encourages teachers to use a range of methods from other year groups if necessary, so that all children can meet the objective being taught, whether by concrete, pictorial or abstract means.

The school's mathematical vocabulary document ensures that children are progressively exposed to age-appropriate mathematical language. Children are exposed to vocabulary at the beginning of each lessons and are expected to use this language during lesson discussions and when completing problem solving and reasoning questions.

At Oakhill we use a concrete, pictorial, abstract approach. These approaches to teaching are used in the order that most suit the needs of the children during units, lessons and the concept being taught. Where possible, children are initially introduced to new learning through an engaging practical investigation or through the use of concrete materials. This is particularly applicable when looking at number. Children are exposed to a wide range of activities involving concrete resources and pictorial representations, designed by the class teacher to ensure that there is variation and progression in the way in which children see things. This is then further built upon and embedded in fluency work, where independent activities are again designed to vary the way in which children see the same concept presented. This helps to build children's knowledge and understanding, and with the development of problem solving and reasoning skills, will enable them to master the strand being taught.

Teachers have a wide range of IT resources that they can draw from and these are used effectively to support and enhance learning. Resources may be used when teaching a whole class group, when completing group work, and they may be used to support independent learning.

Foundation Stage

Our Foundation Stage follow a bespoke long term plan that focusses on building spatial awareness, subitising, number composition and pattern seeking skills. In Nursery, children have a discrete maths lesson three times a week. This increases to four times a week in Reception. Opportunities to apply their skills are then prominent throughout the day in both adult led and child initiated activities.

Year 1

- Daily discrete maths lesson following the school's maths mastery long term plan.
- Key vocabulary is introduced at the beginning of each lesson.
- As much as possible, concrete and pictorial resources are used to aid and enhance children's learning.
- Lessons and activities are carefully designed to enable children of all abilities to build their learning in small steps at an appropriate level.
- Opportunities for discussion and for reasoning and problem solving are provided as often as possible.
- Once a week a short session that looks at the number bonds to 20 takes place, this lesson is predominately taught through games and practical activities.

Year 2

- Daily discrete maths lesson following the school's maths mastery long term plan.
- Key vocabulary is introduced at the beginning of each lesson.
- As much as possible, concrete and pictorial resources are used to aid and enhance children's learning.
- Lessons and activities are carefully designed to enable children of all abilities to build their learning in small steps at an appropriate level.
- Opportunities for discussion and for reasoning and problem solving are provided frequently.
- Once a week children will have a lesson that focuses on the 2, 5 or 10 times table.
- In the Autumn term the children have 5/10 minute warm up or retrieval task.
- In the spring and summer terms, this 10-minute number session will change to four 10-minute arithmetic sessions per week, completed in arithmetic books, and one 10-minute session for pupils to complete a multiplication recall test.

Key Stage 2

- Daily discrete maths lesson following the school's maths mastery long term plan.
- Key vocabulary is introduced at the beginning of each lesson.
- As much as possible, concrete and pictorial resources are used to aid and enhance children's learning.
- Lessons and activities are carefully designed to enable children of all abilities to build their learning in small steps at an appropriate level.
- Opportunities for discussion and for reasoning and problem solving are provided daily.
- In addition to the daily maths lesson, children in key stage 2 have four 10-minute arithmetic sessions each week. These are completed in arithmetic books.
- Children have 30 minutes a week focusing on times tables.
- A 10-minute session each week is used for pupils to complete a multiplication recall test.

Multiplication Tables

At the end of Year 4, all children will complete a statutory multiplication tables check. To aid the children's recall of multiplication facts they have a 30-minute session on a focused table from Year 2-6. These sessions will focus on both the rapid recall of specific tables (declarative knowledge) but also how the table builds up every time the same number is added again (procedural knowledge) as well as getting the children to use what they already know to fill gaps in their knowledge and to make links (conditional knowledge). Once a week all children in Years 3-6 (Year 2 from Spring or

when appropriate) will complete a weekly multiplication tables test. Initially this will be the same test for all children. As children's ability to recall multiplication facts grows, children will complete multiplication tests at their ability level to ensure that they are being challenged and progression is ongoing. In addition to a weekly multiplication test, all children from Y1-6 have access to Times Table Rockstars, enabling them to practise their tables at home and, when time allows, at school.

Inclusion / SEND

Children with special educational needs or a disability, including underlying specific difficulties, have full access to maths lessons through appropriately planned activities, support materials or accommodations which ensure access to lessons. The maths mastery curriculum enables the needs of all learners to be met through carefully designed and sequenced activities that provide small steps of learning that children build on. The use of concrete and pictorial methods of teaching and learning alongside these activities ensure that all children are able to access the curriculum in order to achieve their potential. Where children are working significantly below the age-related level these children will work on a different timetable completing work at an appropriate skills set and pace. Using assessment all progress will be tracked and if children are making accelerated progress, provision will be reviewed. Teachers will plan and mark the work children on the fully adapted program produce. Usually the children on this program have an EHCP or a request to assess is planned and therefore have complex needs. Teachers ensure that children are given the opportunities to access the whole class curriculum as often as possible.

Assessment

Formative assessment is fundamental to raising standards and enabling children to reach their potential. Formative assessment in mathematics takes place daily using a range of strategies such as questioning, discussion, whiteboard work and marking. This information informs the lesson being taught, subsequent planning and next steps in teaching and learning. Summative maths assessments are completed on a termly basis and further, more detailed information about the way in which we assess Maths can be found in our assessment policy.

Outcomes

Being a confident mathematician, understanding how to add, subtract, multiply, divide, work with money, measure etc **impact** on children's skills for not only the next stage of their education but also their future life opportunities. Maths helps us: to explain; to reason; to think abstractly and critically; to problem solve; to communicate and it helps us to complete everyday tasks in life such as: telling the time; reading a timetable; calculating the cost of items or the change to be received; measuring when cooking or baking etc. Maths helps us to achieve our aspirations and to succeed in life.

REVIEW & AMEND AS NECESSARY ANNUALLY – SEPTEMBER 2025 (MOST RECENT REVISION SEPTEMBER 2024)



Weekly Multiplication Test Guidance

Years 2-6

- All children from Y2-6 have a weekly oral multiplication test. This is completed during an arithmetic session.
- Year 2 will start testing in the spring term.
- The test is completed in their multiplication test book.
- The test is read orally by a member of staff and should be completed out of order.
- In years 2 and 3, children will be given between 8 and 20 seconds to answer each question. This time should decrease as the year progresses. By year 4, and continuing into year 5 and 6, children will be given 8 seconds to answer each question.
- Children must work at a multiplication table suited to their ability to ensure continual progression and challenge.
- Once children have correctly scored 10 out of 10 three times on their multiplication table test, they move onto the next.
- Once children are confidently and quickly able to recall all multiplication tables they will move onto a 'mixed bag' – all tables and containing division facts.
- Children complete their multiplication tests at the same time. Teachers will ensure that each child knows what multiplication table they are completing the test on and will test by: 4x, 6x, 0x etc.
- Children self-mark their answers.
- Teachers keep a record of children's results.
- At the end of the academic year, multiplication data is to be passed up to the next class teacher.
- Intermittingly test children on previous multiplication tables to ensure rapid recall.
- All children need to be baselined. See below.

Baseline

Year Group	Multiplication Tables to Test
2	
3	2, 5, 10,
4	2, 5, 10, 3, 4, 8
5	All
6	All

Year Group end of year NC Expectations

Year Group	Multiplication Tables to Test
2	2, 5, 10
3	2, 5, 10, 3, 4, 8
4	All
5	All
6	All

If a child has completed all of the multiplication facts for their year group expectation, they are to be tested on all of those table, including division facts. They can learn the other facts if they wish too, but we will only test on their year group expectation.