

Mathematics

At Wray Common Primary School we love maths and see it as an essential life skill. We are committed to ensuring that children have a positive and meaningful experience of mathematics throughout the whole school.

We offer a curriculum that secures essential knowledge and skills whilst giving the children many opportunities to use and apply their mathematical skills across the curriculum, through regular real life problem solving and mathematical investigations.

Mental Maths Passports

As soon as the children join Wray Common they start working through our Maths Passport system. The Maths Passports are a set of recall skills and facts that have been identified as essential to underpinning maths at different stages of the curriculum. We work with parents and carers to support children in mastering these targets. The children really enjoy completing their timed, personalised weekly mental maths games, and assessing their own learning, including setting themselves weekly targets. Children and parents are also supported with this process at home by using our Learning Zone (Fronter) which includes targeted games for each objective, and help sheets for children and parents. Having these skills makes maths lessons much more fun for everyone!

Calculation policy

At Wray Common we recognise that children need a range of calculation strategies which are efficient, accurate and reliable. Through our carefully developed calculation policy children are given a 'tool kit' of strategies which enable them to calculate confidently. Some of these methods will look different to the methods you were taught as a child. Please feel free to come in and ask questions about the methods we are using; we are more than happy to help.

Interventions

At Wray Common we monitor the children's progress carefully and organise intervention groups for children who either need extra support, or are ready for an additional push. If this is the case with your child, then you will be informed by the school.

How Parents and Carers can Help

At Wray Common we believe that a strong three-way partnership between the child, parent and school enables a child to make the best progress possible. Every parent and carer can help to inspire their children to be successful in maths by:

- Helping them practice their Maths Passport Targets on a weekly basis. Remember little and often is best!
- Come to maths information and workshop sessions, such as 'Learn with your Child' morning.
- Show your child that you enjoy the subject and you like to do maths also, as children can often take their parents attitudes on board themselves.

The Maths Curriculum at Wray Common Primary School

At Wray Common we follow the national curriculum for mathematics, which aims to ensure that all pupils:

- become **fluent** in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- **reason mathematically** by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- can **solve problems** by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

Early Years Foundation Stage

At this stage mathematics involves providing children with opportunities to develop and improve their skills in counting, understanding and using numbers, calculating simple addition and subtraction problems; and to describe shapes, spaces and measures.

Key Stage 1 – Years 1 and 2

The principal focus of mathematics teaching in key stage 1 is to ensure that pupils develop confidence and mental fluency with whole numbers, counting and place value. This should involve working with numerals, words and the four operations, including with practical resources [for example, concrete objects and measuring tools].

At this stage, pupils should develop their ability to recognise, describe, draw, compare and sort different shapes and use the related vocabulary. Teaching should also involve using a range of measures to describe and compare different quantities such as length, mass, capacity/volume, time and money.

By the end of year 2, pupils should know the number bonds to 20 and be precise in using and understanding place value. An emphasis on practice at this early stage will aid fluency.

Pupils should read and spell mathematical vocabulary, at a level consistent with their increasing word reading and spelling knowledge at key stage 1.

Lower Key Stage 2 – Years 3 and 4

The principal focus of mathematics teaching in lower key stage 2 is to ensure that pupils become increasingly fluent with whole numbers and the four operations, including number facts and the concept of place value. This should ensure that pupils develop efficient written and mental methods and perform calculations accurately with increasingly large whole numbers.

At this stage, pupils should develop their ability to solve a range of problems, including with simple fractions and decimal place value. Teaching should also ensure that pupils draw with increasing accuracy and develop mathematical reasoning so they can analyse shapes and their properties, and confidently describe the relationships between them. It should ensure that they can use measuring instruments with accuracy and make connections between measure and number.

By the end of year 4, pupils should have memorised their multiplication tables up to and including the 12 multiplication table and show precision and fluency in their work.

Pupils should read and spell mathematical vocabulary correctly and confidently, using their growing word reading knowledge and their knowledge of spelling.

Upper Key Stage 2 – Years 5 and 6

The principal focus of mathematics teaching in upper key stage 2 is to ensure that pupils extend their understanding of the number system and place value to include larger integers. This should develop the connections that pupils make between multiplication and division with fractions, decimals, percentages and ratio.

At this stage, pupils should develop their ability to solve a wider range of problems, including increasingly complex properties of numbers and arithmetic, and problems demanding efficient written and mental methods of calculation. With this foundation in arithmetic, pupils are introduced to the language of algebra as a means for solving a variety of problems. Teaching in geometry and measures should consolidate and extend knowledge developed in number. Teaching should also ensure that pupils classify shapes with increasingly complex geometric properties and that they learn the vocabulary they need to describe them.

By the end of year 6, pupils should be fluent in written methods for all four operations, including long multiplication and division, and in working with fractions, decimals and percentages.

Pupils should read, spell and pronounce mathematical vocabulary correctly.