



Maths at Moat Farm Junior School

We aim for our children in Maths to:

- Become fluent in the fundamentals of maths, by teaching them to recall number facts and apply knowledge (including mental strategies) rapidly and accurately. Mental maths starters are planned to complement upcoming units, current units or to embed previous taught strategies. Children are taught to read and spell mathematical vocabulary correctly and confidently.
- Reason mathematically by being strategic and methodical. We nurture children's ability to spot patterns, explore number relationships, make generalisations and justify their answers using proof and mathematical language.
- Solve problems by applying their maths to a variety of real life problems with increasing sophistication. We teach our children how to manipulate numbers so that they can break down problems into a series of simpler steps in order to seek solutions confidently.

Assessment for Learning

Formative and summative assessment for learning is at the heart of everything we do in maths. Our teachers plan weekly learning journeys following the National Curriculum objectives that have been broken down in to maths assessment ladders. At the start of the learning journeys, teachers revisit key knowledge from the previous year group band to ensure any gaps in knowledge are addressed before moving the learning on. Teachers adapt lessons on a daily basis, based on their knowledge of how the children have progressed in the lesson. This means that learning journeys are personalised to meet the needs of all children, whether providing support or further challenge.

Manipulatives

We understand that the use of equipment in maths has a significant positive effect on learning, when used in the right context. Our teachers routinely use many different apparatus such as: Multilink cubes, Dienes apparatus, Numicon, counting beads, counters, place value counters, Cuisenaire rods, place value cards, hundred squares, digit cards, dice, dominoes and many more. The use of equipment not only ensures that our children are more active, engaged and interested in lessons; it also helps to embed new concepts.

Vulnerable, off-track and more able children

Pupil premium, children with SEND and children who are off track are identified and targeted in lessons and/or maths interventions. Teachers, the maths subject leader, SENCO and SLT work together to identify children who need support and plan in-class and, when needed, out of class support. The support varies from targeted questioning and support in class, adapted planning, live marking, daily CRAM opportunities, use of equipment, placing the child in a maths intervention, IEPs and STAR boxes. Pupils, who grasp concepts rapidly, are challenged through being offered rich and sophisticated problems and investigations before moving on to another unit.

Whole School Maths Units - Progression of Skills	
Autumn	During the Autumn term, the main focus for all year groups is to ensure that pupils become increasingly fluent with numbers and the four operations, including number facts and the concept of place value . This ensures that our pupils develop efficient written and mental methods and perform calculations accurately with increasingly large numbers. Our pupils are then given the opportunity to apply this knowledge continuously throughout the year in different contexts. To complement place value and calculation, during this term, the children also develop their mathematical reasoning so they can analyse shapes and their properties , and confidently describe the relationships between them. Children then use their knowledge and vocabulary of shape to apply it in two different ways: in measures by finding the perimeter of shapes and fractions unit. This ensures that children continuously make connections between measure, shape number.
Spring	During Spring term, the children continue to revisit, apply and build on their knowledge of the four operations, including number facts and the concept of place value . We continuously plan for the children to be able to apply their knowledge of number, place value and calculations this term by linking it to many measures contexts, such as length, time and money as well as moving on to further explore fractions and statistics . By continuing to provide opportunities for the children to apply their knowledge of number and calculations throughout their learning journeys in different contexts, our children develop their ability and strategies to solve a range of problems.
Summer	By the second part of the Summer term, our children have been taught most of the key knowledge that is essential to their year group, based on the current Mathematics curriculum. Our children spend most of this term developing their mathematical reasoning, investigating and applying the skills learnt at their year group level in different contexts. Our teachers continue to use assessment for learning daily to close gaps, address misconceptions and challenge children. Teachers continue to explore the mental maths strategies throughout this term, arming the children with many strategies to choose from when solving problems and answering calculations. By the end of year 4, our pupils should have memorised their multiplication tables up to and including the 12 multiplication table and show precision and fluency in their work. Our teachers use many interactive strategies to practise these during mental maths starters throughout the year such as Times Tables Rock Stars and exploring the times tables patterns and their relationships using counting sticks. By the end of year 6, we aim for our pupils to be fluent in written methods for all four operations, including long multiplication and division, and in working with fractions, decimals and percentages.