



MATHS at Mousehole School

Intent

At Mousehole School, maths is a top priority and is a key focus for our curriculum. Sarah Trow is responsible for maths Leadership at the school; she is supported in monitoring and review processes by all the teaching staff, working parties of governors and external professionals (academy trust and local Maths Hub).

It is our intention to ensure that, by the end of their primary education, children leave Mousehole School as confident mathematicians with the ability to reason mathematically, to justify their decisions and to maintain an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject. Maths is a highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. A high-quality mathematics education therefore provides a foundation for understanding the world.

Developing confidence in mathematics and a love for the subject requires **fluency** in the fundamentals. Key to this is 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.

Implementation

- It is crucial that all staff are confident in their own mathematical understanding. In house training and updates are carried out. Regular professional dialogue within and beyond the school about maths and maths pedagogy and the opportunity to engage in external training is an important factor in this. Teaching staff have had regular involvement in Maths Hub research projects and extended training programmes.
- In early years our approach to teaching Maths is focussed on developing an interest and passion for maths and establishing the foundations for confidence in maths. There are regular maths sessions lead by the teacher as well as maths themed activities in the enabled environment of the class. Welly Wednesdays and the outdoor classroom are both used to reinforce maths ideas and themes. Focussed interventions are used to address gaps in children's understanding of number cardinality, comparison and composition. The new Early Years framework introduced in 2021 focuses on a deep and thorough understanding of the composition of numbers.
- Parents - we hope to involve parents in their children's maths learning. We encourage them to celebrate maths as an interesting subject and encourage them to support their children with learning the facts which support fluency and confidence in maths. We encourage involvement in maths homework which starts in KS2 (although some voluntary activities are shared in KS1) we also have maths workshops run by children at parent's consultations, we share weekly maths related posts in each class' Seesaw, the calculation policy is shared

(website, seesaw), maths is explicitly part of EY intro meetings and individual support is offered where necessary.

- To ensure that all children can keep pace with the maths curriculum in their class we use intervention/additional programmes for example maths pre-teach, precision teaching and tech-based interventions.
- We ensure progression in maths – we have a clear whole school calculation policy which is shared and regularly reviewed, and we use the White Rose Maths (WRM) planning framework to ensure a longer approach to long medium-term planning. These plans are adapted and applied in different ways to ensure progression through content is at an appropriate pace for the children in each class and cohort.
- We use maths exercise books for children to record their maths work and supplement these with WRM workbooks which facilitate intelligent practice and year group specific content in mixed year classes.
- We use and reinforce the CPA model, variation theory – conceptual and procedural, regular problem reasoning practice (see timetables), fluency and true fluency practice and justify and explain for maths concepts.
- Concrete resources are available and are regularly used (TAs and pupils). A number line and calendar are on display in every classroom.
- We use a variety of resources including digital ones to ensure children develop automaticity and true mathematical fluency (the ability to efficiently adapt and apply number facts).

Impact

The impact we are aiming for is manifested in a variety of ways. Firstly, we want the children to feel confident and happy learning maths. We want them to see its value in society and in their own lives and to confidently apply the skills they have acquired. We want them to move onto secondary school seeing maths as a subject that they “Can Do”. In measurable terms we want them to make expected or better progress from their starting points knowing that any mistakes they make along the way are opportunities for learning. We want them to appreciate that feeling less confident about a subject is fine but to understand that it is possible, with the right support and a little determination, to change that. If, along the way, we can also make them see that maths is fun... then we would be very happy.

Following Covid-19, we continued with our range of assessments ensuring, in particular, that regular assessment in relation to intervention ensured that these are accurately focused on the correct pupils, enabling maximum progress to be made. We have different ways of assessing the impact of our Maths teaching:

- Pupil Voice - Through discussion and feedback, children talk enthusiastically about their maths lessons and speak about how they enjoy learning about maths. They can articulate the context in which maths is being taught and relate this to real life purposes. Children show confidence and believe they can learn about a new maths area and apply the knowledge and skills they already have.
- Evidence in Knowledge - Pupils know how and why maths is used in the outside world and in the workplace. They know about different ways that maths can be used to support their future potential. Children demonstrate a quick recall of facts and procedures. This includes the recollection of times tables. Children have mastered the use and application of the mathematical skills they have been taught, making the required mental links between arithmetics and reasoning enabling them to successfully choose methods to solve problems.
- In Skills - Pupils use acquired vocabulary in maths

lessons. They have the skills to use methods independently and show resilience when tackling problems. Children show pride in the presentation and understanding of the work. They enjoy demonstrating what they know.

- Outcomes - At the end of each year, we expect the children to have made the expected amount of progress or more. This is evaluated by termly tests and teacher discussions. We also use our End of Key Stage data to assess the impact of our teaching. In 2022, our Key Stage 1 data was below local and national data for the percentage of pupils achieving EXS and GDS. In Key Stage 2, our data was in line with local and national for the percentage of pupils achieving EXS and GDS.