



## MATHS at Mousehole School

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### Intent

At Mousehole School, maths is a top priority and is a key focus for our curriculum. Chris Roynon is responsible for maths Leadership at the school; he 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 factors 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 parents 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 were 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 linger 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 that maths work and supplement these with WRM work books 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 Maths curriculum is evaluated through

- Whole school learning-scrutiny
- Analysis of children’s attainment and progress performance in regular standardised tests
- Lesson obs – formal and informal by the subject lead
- External review – PEL, SHIP
- Learning forum meetings which include:
  - Pupils interviews
  - Subject lead scrutiny
  - Action plan review

## Data outcomes

### KS1 Maths

	Expected Standard		Greater Depth Standard	
	All children (Nat)	Disadvantaged	All children (Nat)	Disadvantaged
<b>2017</b>	85.7% (75%)	NA	21.4% (21%)	NA
<b>2018</b>	81.3% (76%)	50%	25% (22%)	0%
<b>2019</b>	80% (79%)	50%	26.7% (22%)	50%

### KS2 Maths

	Expected Standard		Greater Depth Standard	
	All children (Nat)	Disadvantaged	All children (Nat)	Disadvantaged
<b>2017</b>	100% (75%)	100%	26.7% (23%)	25%
<b>2018</b>	86.7% (76%)	83.3%	26.7% (24%)	0%
<b>2019</b>	90% (79%)	66.7%	25% (27%)	0%

### Progress measures

	All	Pupil Premium	LA PP comparator
<b>2017</b>	1.78	1.17	-1.8
<b>2018</b>	0.66	-1.2	-1.8
<b>2019</b>	1.29	-2.08	-1.8

In 2021 our year six cohort carried standardised NFER maths tests. The results are as follows:

72% Reached Expected Standard and 17% reached a greater depth standard.

Covid related disruption had significant impact on this cohort.

### Summary

We consistently achieve above national averages for expected standard in KS1 and KS2

The number achieving greater depth standard is in-line or slightly above national standards

Progress measures are above national averages except for pupil premium children who are also underperforming in terms of greater depth standard at KS2