



Mathematics at Mill Dam



Intent

At Mill Dam School, we aim to deliver an ambitious, engaging and consistent maths curriculum which challenges all children. Our curriculum is vocabulary and representation rich and supports pupils to make connections with key concepts using justifications based on logical reasoning. Children are enabled to identify mistakes and explain these with confidence, whilst also becoming fluent in recalling number facts, such as number bonds and times tables. Our end goal and expectation is that all pupils (with very limited exceptions) master mathematics by acquiring a deep, long term, secure and adaptable understanding of the subject with transferrable mathematical skills.

Maths at Mill Dam is taught in the following ways:

- In Early Years, children will develop firm mathematical foundations in a way that is engaging, and appropriate for their age. This will be planned using the 6 core elements of maths as follows: cardinality, comparison, composition, pattern, shape & space, measures. The team plan a range of activities which include direct teaching, planned activities in the environment and incidental teaching to support children in the learning environment.
- Lessons are planned using the NCETM Curriculum Prioritisation Materials which carefully sequence National Curriculum objectives into smaller steps. These smaller steps are deepened and extended as teachers use intelligent practice to supplement high quality resources from well-recognised schemes such as, but not limited to, White Rose Maths, NRICH, Twinkl and Master the Curriculum.
- In school we follow a mastery approach, focusing on 5 key areas: Fluency, Variation, Representation and Structure, Mathematical thinking and Coherence & Small steps.
- Throughout KS1 and KS2, daily mathematics lessons will take place. These lessons teach a balance of fluency, reasoning and problem solving explicitly for all learners. These lessons are heavily guided with teacher instruction following an “I do- we do- you do” approach.
- The introduction to lessons is structured with daily number facts and arithmetic followed by the main session. Arithmetic is also practised through morning activities and explicitly taught sessions.
- Regular times table retrieval practice is in place through daily times table booklets up to year 4 to ensure these are embedded for Upper Key Stage 2.
- In Reception, Year 1 and Year 2, children undertake a daily 15 minute “Mastering Number” session in addition to their daily maths lesson. This session improves fluency, confidence, flexible thinking and number sense and is supported through the use of Number blocks and Rekenreks.
- Termly NFER assessments are undertaken in years 3, 4 and 5 to closely monitor pupils learning. Statutory and non-statutory SATS assessments are undertaken in years 2 and 6. Formative assessment underpins all sessions across all year groups. Live verbal feedback is given to pupils during sessions.

Impact

The outcomes of summative assessments across school have shown that Mathematics is a real strength at Mill Dam School. This continues to improve and strengthen and outcomes at EYFS, Y2 and Y6 are consistently in line with, or above, National Average measures. Impact is also seen through the range of work in children’s maths books, including transferrable skills which are evident in the wider curriculum. We will judge ongoing impact through in school and trust wide scrutiny and planning reviews, drop ins and pupil voice. We will monitor impact using termly NFER testing in years 3, 4, 5 and through statutory and non-statutory assessments in year 2 and year 6. The impact of our mathematics curriculum will also be shown through consistency and small steps within maths books.

Cross curricular and extra curricular links:

- We make opportunities wherever possible to apply mathematics within real life contexts e.g. through handling data in science and geography.

