

Maths at The Meadows Primary School

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Intent: Why we do what we do

At The Meadows Primary School, we believe **every child is a mathematician**. Our curriculum is coherently sequenced, so pupils build secure knowledge and deep understanding year on year.

Mathematics is an essential life skill. Through a mastery approach, we develop learners who are **curious, confident and creative thinkers**. We want children to see mathematics as a connected, sense-making subject that they can explore, enjoy and succeed in.

We aim for every child to:

- **Secure strong fluency** in fundamental mathematical facts and skills.
- **Develop deep understanding**, not just recall procedures.
- **Use precise mathematical language** to clearly explain their thinking.
- **Reason mathematically** by spotting patterns, making connections and justifying ideas.
- **Persevere with challenge**, recognising that mistakes help them learn.
- **Solve problems confidently** in a range of contexts across the curriculum and in real life.
- **Work independently and collaboratively**, supporting one another to succeed.

Teaching at The Meadows is guided by the **NCETM's Five Big Ideas**: coherence, representation and structure, mathematical thinking, fluency and variation. These principles ensure all pupils move forward together, supported and challenged appropriately, so that they become secure, confident and capable mathematicians.



Implementation: How we teach maths at The Meadows

At The Meadows Primary School, we follow a **Teaching for Mastery** approach so that all pupils develop secure, deep and connected understanding. Teaching is **carefully sequenced** and responsive, enabling pupils to progress together and preventing long-term gaps through timely intervention.

How we teach mathematics

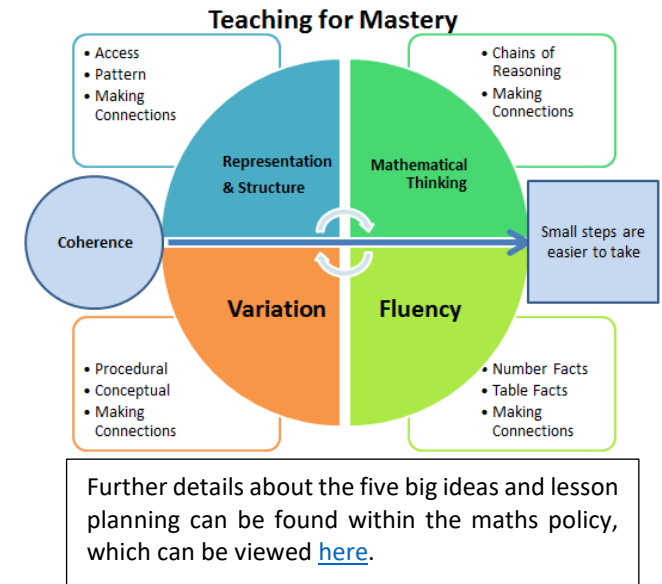
Our approach is guided by the **NCETM Five Big Ideas** – coherence, representation and structure, mathematical thinking, fluency and variation. Lessons are planned in small steps, **building understanding** through the use of manipulatives, images and symbols that expose underlying mathematical structure.

We keep the class working on the same key learning, with scaffolds or depth tasks enabling all pupils to access and master the lesson objective. Challenge comes from **deepening understanding**, not accelerating through content.

Teachers plan lessons that:

- Use representations purposefully to **reveal mathematical structure**
- **Highlight connections** through carefully crafted examples and questions
- **Promote reasoning, explanation and precise mathematical language**
- Provide structured opportunities to **practise, apply and embed knowledge**
- Make **meaningful links** across mathematical domains so learning is transferable (e.g. measures, time, money, statistics)

In EYFS, strong foundations are built through the NCETM Mastering Number programme, which develops secure number relationships and early fluency. Teachers also deliver intentional input for spatial reasoning (shape, position, direction, pattern) aligned to the Early Learning Goals.



Mathematical learning is strengthened through carefully planned continuous provision, with adults modelling precise mathematical language and encouraging children to notice patterns, explore structure and explain their thinking.

Daily mathematics lessons in KS1 and KS2 (45–60 minutes) include direct teaching, guided practice and independent application. Pupils also take part in a daily fluency session (10–20 minutes) to develop **fluency in key facts and relationships**, supporting efficient calculation and secure recall.

When needed, pupils receive **pre-teaching, same-day intervention**, or additional depth tasks so all children can keep pace with the learning sequence.

What this looks like in classrooms

You will see:

- Pupils using manipulatives, images and symbols to make sense of mathematical structure
- Examples and questions that draw out patterns and connections
- All pupils engaged in the same learning, supported or challenged as needed
- Working walls, stem sentences and models that reinforce precise mathematical vocabulary

You will hear:

- Pupils reasoning mathematically: *“I know this because...”, “It’s the same as...”, “I noticed...”*
- Teachers probing thinking with purposeful, carefully chosen questions
- Confident mathematical talk, collaboration and curiosity

You will feel:

- A calm, purposeful atmosphere where everyone believes **“We can all do maths.”**
- Pupils showing pride, perseverance and enjoyment in tackling challenges
- A shared understanding that mathematics is a journey towards depth and secure understanding for every child

Impact: How we will know if we have been successful

Our mastery curriculum enables pupils to **think and talk mathematically with confidence**, supported by classrooms where **representations, structure and precise language** secure deep understanding. Pupils approach challenge with **resilience and a positive attitude**, seeing mathematics as meaningful and relevant.

As a result, pupils demonstrate:

- fluency, confidence and deep understanding
- confident reasoning and accurate mathematical vocabulary
- successful problem solving in varied contexts
- positive attitudes, perseverance and enjoyment of mathematics
- secure readiness for the next stage of learning and future study

We carefully considered what we wanted maths to be like:

We will see:	We will hear:	We will have children who:
• Children engaged, motivated and eager to learn • Pupils absorbed in purposeful tasks and working collaboratively • Rich mathematical discussion in pairs and groups • Children using representations and choosing efficient methods independently • Learners showing enjoyment, confidence and pride in their work • Pupils using creative strategies to solve problems and make connections	• A positive mathematical “buzz” in classrooms • Children reasoning: “I know this because...”, “I noticed...”, “It’s the same as...” • Pupils asking thoughtful questions and building on each other’s ideas • Mathematical vocabulary used accurately and confidently • Supportive collaboration, encouragement and shared success	• Are curious, enthusiastic and intrinsically motivated • Feel appropriately challenged and supported • Show resilience, take risks and embrace mistakes as part of learning • Experience “lightbulb moments” as concepts connect and make sense • Develop growing self-belief and mathematical identity • Finish lessons feeling proud — and sometimes disappointed to stop!

Planning: whole school long term planning

Early Years and Foundation Stage

The school follows the [Early Learning Goals](#) and [Development Matters](#), alongside guidance from [NCETM](#) around the six key areas of learning to plan the EYFS maths curriculum.

Key Stage One & Two

The school follows the [National Curriculum for Key Stages 1 and 2](#), and this underpins our mathematics curriculum for each year group. To support high-quality, coherent curriculum delivery, we use the [Oak National Academy](#) maths curriculum and teaching resources, which are written in line with the National Curriculum and informed by [DfE Mathematics Guidance for Key Stages 1 and 2](#) and [NCETM principles](#).

The Oak maths curriculum is carefully sequenced to ensure that key mathematical concepts and methods are introduced, developed and revisited in a logical and progressive way, allowing pupils to build secure knowledge as they move through the key stages. The curriculum prioritises depth of understanding, using a range of representations and approaches aligned with [NCETM Ready-to-Progress](#) principles, ensuring that pupils develop strong foundations before moving on to more formal methods.

Teachers use Oak materials flexibly to meet the needs of their classes, adapting lessons where necessary, while maintaining the overall coherence and progression of the curriculum.

❖ The details of the unit plans for each **year group** can be found [here](#).

The details of the national curriculum alignment can be found [here](#).

An **overview of the four operations** for each year group can be found [here](#).

❖ How can you help your child at home?

You play a vital role in helping your child develop confidence and success in maths. Small, regular actions at home make a big difference.

1. Be positive about maths

Children often adopt the attitudes they hear around them. Try to avoid saying things like “*I can’t do maths*” or “*I hated maths at school*”. Instead, emphasise that maths is something we **learn and improve at through practice**. A positive mindset helps children feel confident to try new challenges.

2. Point out maths in everyday life

Maths is everywhere. You can help by involving your child in everyday activities such as:

- shopping and handling money
- cooking and measuring ingredients
- telling the time or reading timetables
- estimating distances, time or quantities

Seeing maths used in real-life contexts helps children understand that it is useful and meaningful.

3. Support fluency through regular practice

Fluency is a key part of becoming confident in maths. It includes knowing important facts (such as number bonds and times tables), using methods accurately and being able to apply them flexibly. Research shows that when children are fluent with key facts, they place **less strain on their working memory**, allowing them to focus on understanding new ideas and solving problems more effectively. [\[ncetm.org.uk\]](https://www.ncetm.org.uk), [\[education...ion.org.uk\]](https://education.ion.org.uk)

The Department for Education and the NCETM both emphasise that fluency supports deeper understanding and helps children make connections across different areas of maths. [\[gov.uk\]](https://www.gov.uk), [\[assets.pub...ice.gov.uk\]](https://assets.publishing.service.gov.uk)

You can support fluency by encouraging **short, frequent practice sessions**, praising improvements over time and keeping practice active and positive.

4. Use NumBots and Times Table Rock Stars (TTRS)

We use online programmes to support fluency at home:

- **KS1 pupils** should complete their maths homework using **NumBots**, which helps children develop secure number bonds and early calculation skills.
- **KS2 pupils** should complete their maths homework using **Times Table Rock Stars (TTRS)** to build automatic recall of multiplication and division facts.

These programmes are designed to support **retrieval practice**, which research shows is highly effective in strengthening long-term memory and improving learning. [\[educatione...ion.org.uk\]](#), [\[educatione...ion.org.uk\]](#)

5. Praise effort, strategies and perseverance

Rather than focusing only on correct answers, praise your child for:

- trying a new strategy
- explaining their thinking
- persevering when something feels tricky

Research consistently shows that focusing on effort and practice helps children become more resilient learners and more confident mathematicians over time. [\[ncetm.org.uk\]](#)

6. Use school-consistent methods

Children are taught specific calculation methods at school. Using the same approaches at home helps avoid confusion. Please refer to our **Maths Calculations** document which can be found [here](#).

A Message for Parents: Why Methods May Look Different

You may notice that the methods your child is taught look different from how you learned maths at school. This is completely intentional.

Children are encouraged to develop a deep understanding of numbers by first using practical resources, drawings and discussion, before moving on to written methods. Research shows that this approach helps children grow into confident, flexible and successful mathematicians over time.

To support this learning, we ask that parents try not to introduce alternative written methods at home, even if they feel quicker or more familiar. Using different methods before children fully understand the maths behind them can sometimes cause confusion. Consistency between home and school really helps children feel secure in their learning. If you would like to understand a method more fully, please feel free to speak to your child's teacher — we are always happy to explain or demonstrate how a method works.

The best ways to support your child at home are to:

- Ask them to explain how they worked something out
- Encourage them to use the methods they are learning in school
- Praise their effort, thinking and perseverance

Thank you for working with us to help children develop strong and secure mathematical understanding.

Here are some website suggestions to support children with their maths at home.

The school pays a subscription for the following 3 websites- if you need your child's login details please contact their teacher.

[NumBots | Motivational maths practice for schools and families.](#) (KS1 & 2)

[Times Tables Rock Stars: Play](#) (KS2)

[SATs Boot Camp - Year 6 SATs Revision, Practice Papers & SATs Questions Online](#) (Year 6 only)

These sites are great to simulate the Multiplication tables check that children will take in year 4.

<https://mathsframe.co.uk/en/resources/resource/477/Multiplication-Tables-Check>

<https://www.timestables.co.uk/multiplication-tables-check/>

Oxford Owl offer a range of games, activities and videos to support maths at home.

<https://home.oxfordowl.co.uk/kids-activities/fun-maths-games-and-activities/>

[Help with times tables: fun ideas, videos and quizzes - Oxford Owl](#)

<https://home.oxfordowl.co.uk/maths/>

Maths games

KS1 <https://thirdspacelearning.com/blog/maths-games-ks1/>

KS2 <https://thirdspacelearning.com/blog/maths-games-ks2/>

Mathsframe: a range of interactive games for different areas of maths.

<https://mathsframe.co.uk/en/resources/category/22/most-popular>

Here are just a few ideas, but a quick google search e.g. maths games for Key stage 1 or 2 will uncover many more:

- [Top Marks](#) A very useful website with a variety of maths games to support learning across all areas.
- [KS1 Maths - BBC Bitesize](#)
- [KS2 Maths - BBC Bitesize](#)
- [Mental Maths Train](#) A useful maths game to support arithmetic skills
- [Hit the Button](#) A useful maths game to support arithmetic skills
- [Daily 10](#) A useful maths game to support arithmetic skills. Children can choose their own level of challenge and the area of questions to focus on.
- [Teaching Time | Telling the Time Games and Teaching Resources for KS1 & KS2](#)
- [ictgames - Home Page](#) lots of maths games here
- [Free online Maths games](#) Lots here to choose from.
- [Times tables games and songs 1-12 - BBC Bitesize](#)

What do children at The Meadows think about Maths?

"Maths is good we get to learn more maths like work with the rekenreks. Mrs Thomas says which number we have to make and then we make the number."
Harper (Chicks)

"I like to do Number Blocks and Rekenreks." Lottie (Duckings)

"Maths is good. I like putting my hand up to answer questions and getting picked with the lolly pop sticks." Jack (Wrens)

"Maths is good. We do a lot of counting and talking with our partners." Dottie (Wrens)

"Maths is nice to get to learn new things that you didn't know before." Erin (Robins)

"Maths is really fun I get to learn new things to make me smarter" Ella (Owls)

"I think maths is interesting because I learn new ways of adding, subtracting and multiplying." Rhys (Owls)

"I like maths you get to figure out the answer and keep it in the back of your brain until you need it next time." Theo (Puffins)

"I like how you get to use different equipment to help you in Maths" Lydia (Puffins)

"Maths is like a sport it helps you learn how to count and do times tables" Rory (Puffins)

"Sometimes if I struggle I ask the teacher and then do some practise at home" Gracie (Kingfishers)

"I like Maths I like adding and it's fun to learn" Maisie (Kestrels)

"I like it because I don't usually get stuck but if I do I can talk to my partner." Louie (Kestrels)

Hawks

"I think it's a nice subject because equations help it make sense and the methods we are taught help me." Lily (Hawks)

"I like maths because lots of different topics help us to solve everyday problems and figure out the solution." Jenson (Hawks)

"I like maths if you want to be a teacher it will help you to teach the children maths and how to solve equations." Poppy (Hawks)

"I like to learn maths you get to learn new stuff and know things you didn't know before which is fun." Gracie (Year 6)

"I like Maths because Mr Giles makes it fun and we get to learn new things." Rihanna (Year 6)

"I like arithmetic. You get to see if you make a mistake and you can learn from it." Freya (Year 6)