Maths Mastery At Long Lane Primary School

A parent-friendly guide to how children build deep, flexible number understanding.

Understanding • Fluency • Reasoning • Problem solving

Think

Build

Explain

Apply

Confidence in Maths

Confidence in Maths is not about ability, nor is it about future ability. It is about past experiences, what and who you listen to and how you see improvement and success

APE:

Not all children are confident in Maths and sometimes this is due to a number of reasons:

- Worry about making mistakes
- Fixed mindset ‘not good at Maths’ – feel they need the answer quickly
- See things more visually and need concrete apparatus to solve
- Haven’t had enough practice with earlier number skills
- Comparing themselves to others rather than their last attempt
- Find mathematical vocabulary confusing or hard to understand

Building Confidence and Engagement in Maths

How we help children enjoy maths, feel successful, and grow as learners

1 How we boost confidence in the classroom

- We use practical resources and visuals to make ideas clear.
- We break learning into small, manageable steps.
- We model thinking and show children how to tackle problems.
- We encourage talk, discussion and explaining ideas.
- We praise effort, perseverance and improvement.
- We help children make links between new learning and what they already know.

2 Strategies you might see in maths lessons

- Using counters, cubes, bead strings and number lines
- Talking to a partner about how to solve a problem
- Explaining and justifying answers
- Spotting patterns and making connections
- Learning from mistakes and trying a different strategy
- Using sentence stems such as: 'I noticed…', 'I know this because…', 'Another way is…'

3 Why a growth mindset matters

- Children become more willing to have a go.
- They learn that mistakes help the brain grow.
- They build resilience and keep trying when work feels challenging.
- They develop confidence to explain their thinking.
- They become more engaged and positive about maths.

4 An important message about maths

"Maths is not always about getting the right answer straight away. It is about the process, the strategies we use, and the connections we make in our learning along the way."

What we want children to feel

Curious · Capable · Resilient · Ready to explain

Confidence grows when children are encouraged to explain their thinking, try different strategies, and understand that mistakes are part of learning.

What do we mean by “maths mastery”?

Children move together through small, carefully sequenced steps — and learn ideas deeply before rushing on.

Mastery is not about doing harder calculations sooner. It means children can:

- 🧩 Represent an idea in different ways
- 🔁 Practise enough to become fluent
- 💬 Explain how and why a method works
- 🛠️ Use maths to solve unfamiliar problems

Aim: “I know it, I understand it, and I can use it.”

The fundamental features

A mastery lesson makes the structure of maths visible, not mysterious.

Concrete

Children handle objects to build meaning

Pictorial

They draw or view models that show the maths

Abstract

Symbols and written methods come after understanding

Language

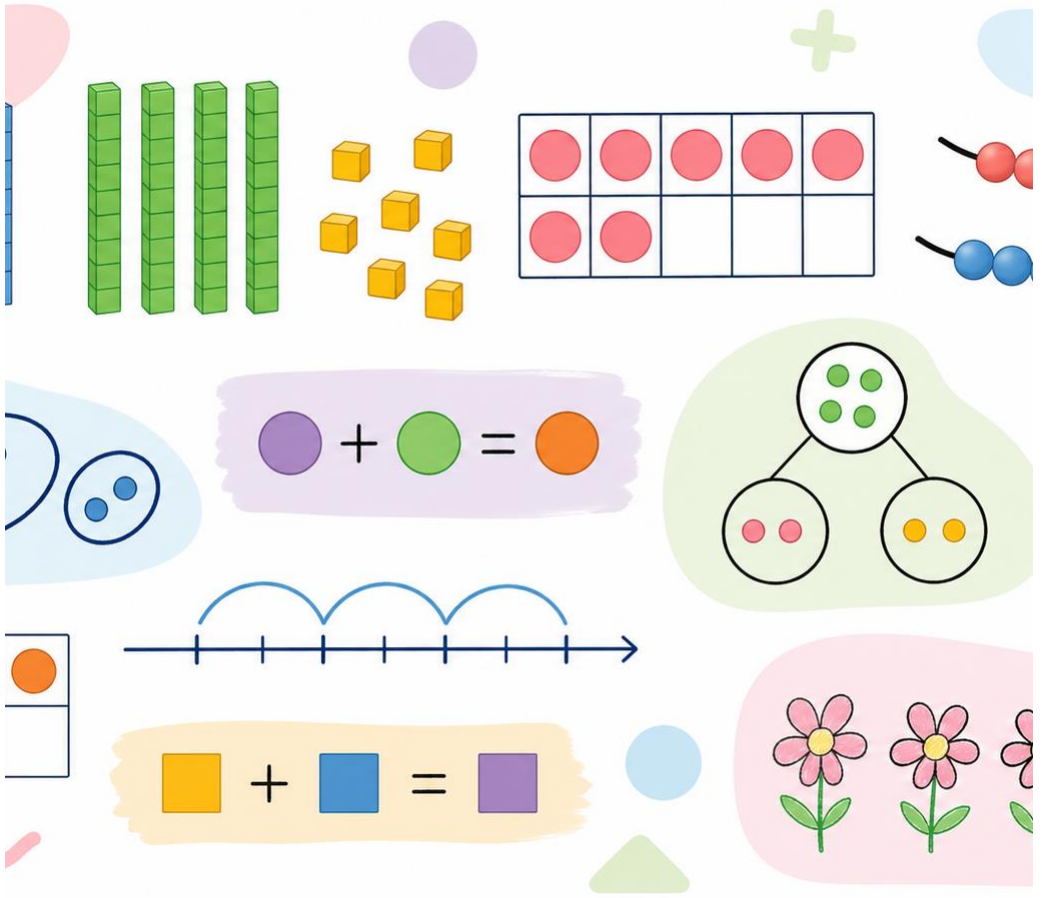
Precise words help children reason clearly

We often call this Concrete → Pictorial → Abstract (CPA).

Maths mastery techniques in class

Children are encouraged to notice, reason and connect ideas.

1	**Small steps**	One idea at a time, carefully sequenced
2	**Stem sentences**	“There are ___ groups of ___.”
3	**Variation**	Examples change slightly so children spot patterns
4	**Same-day support**	Misconceptions are addressed quickly
5	**Precise models**	Tens frames, bead strings, arrays, part–whole diagrams



Questioning: the engine of mastery

Good questions reveal thinking, not just answers.

Instead of only asking...

“What is the answer?”

These are what we call ‘low stakes, high impact’ questions. They are inclusive to everyone and they are accessible even to those without confidence.
They elicit deeper thinking, more discussion and the potential to unlock vital patterns in Maths concepts and facts.

Teachers also ask...

- ❓ What do you notice?
- ❓ What is the odd one out? True or False?
- ❓ What is the same? What is different?
- ❓ Can you prove it?
- ❓ How do you know?
- ❓ Can you represent it another way?
- ❓ What happens if...?

At home, praise the explanation as much as the answer.

How tasks are presented

Tasks are designed so children can see relationships and talk about them.

1. Explore

Use objects, images or a story context

2. Connect

Discuss patterns, language and models

3. Apply

Record efficiently and solve problems

Example: children may build 24 as 2 tens and 4 ones before writing 20 + 4 or 24.

How this may differ from how you learned maths

Many adults remember quick procedures; mastery puts understanding first.

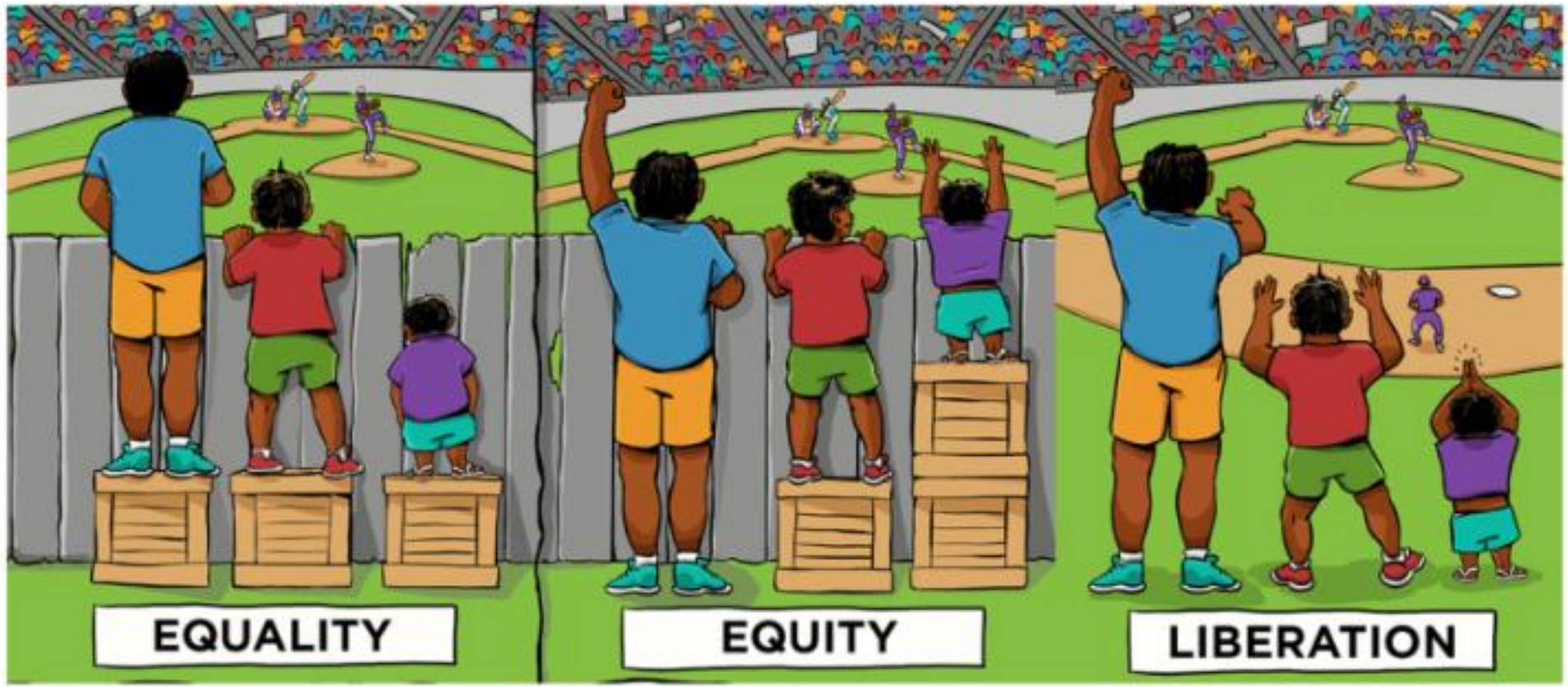
Then: “Follow my method.”

Now: “Understand, explain, connect.”

Fast recall still matters — but children learn why methods work, not only how to perform them.

Don't just tell a different version of the same story.

Change The Story!



Teach Active, TT Rockstars and IXL

This is why we try to make Maths as active and fun as we can.

Keeping children engaged, motivated and with a 'Love of Learning' – No Learner Left Behind!

How parents can help

You do not need to teach a different method. Help your child talk, notice and practise calmly.

Ask “How do you know?”

Encourage explanation before correction.

Use everyday maths

Cooking, shopping, time and measuring are perfect.

Practise little and often

Number facts, times tables and mental strategies.

Value mistakes

Mistakes show what to explore next. Be comfortable with challenge – give it a go. FAIL (First Attempt in Learning), Failure is the bridge to success.

Practice Place Value and Number Facts (including Times Tables)

If you know the appropriate number facts and can recall them quickly (or even slowly) then this reduces the cognitive load when maths problems get harder

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Together we help every child believe: “I can do maths.”

White Rose Supplement resources