



Mathematics at Our Lady & St. Oswald's

A Parent Workshop: Building Number Sense, Fluency & Confidence

**Working together to help children become confident
mathematicians**

Number bonds • Times tables • White Rose Maths • Mastering Number • Sumdog

Tonight is about understanding the 'why' and leaving with practical things you can do at home.

Fluency ★ Reasoning ★ Problem Solving



Our shared maths journey

A consistent approach from Reception through Key Stage 2

WHITE ROSE MATHS

Provides structure and progression. Children meet concepts through small steps and have opportunities to practise, reason and solve problems.

MASTERY APPROACH

We want children to understand mathematics deeply—not simply memorise a procedure. Representations, language, reasoning and connections matter.

MASTERING NUMBER

Reception and KS1 work develops number sense, fluency and flexibility using carefully chosen representations and mathematical talk.

SUMDOG

Provides engaging, targeted practice that can reinforce taught skills, support fluency and give teachers useful information.

The important bit: these approaches work together.

- Teach for understanding first.
- Use representations and mathematical language.
- Practise key facts regularly so they become increasingly fluent.
- Apply facts in reasoning and problem solving.



What do we mean by 'fluency'?

Fluency is much more than being fast.

1

Recall

Know key facts and recall them increasingly automatically.

2

Use

Use facts accurately and choose an efficient method.

3

Connect

See relationships and adapt knowledge in new contexts.

For example...

If I know $7 + 5 = 12$, I can use that to help with $17 + 5 = 22$, $12 - 7 = 5$, and $70 + 50 = 120$.

The goal is flexible, confident thinking—not simply speed.



Number sense starts early

What Mastering Number is building in Reception and KS1

SEE IT

Use structured representations so children can see quantities and relationships, not rely only on counting.

SAY IT

Mathematical language and discussion help children explain what they notice and why.

USE IT

Children connect facts and representations so known facts can support new calculations.

Examples of representations you may see:

Ten-frame

Rekenrek

Part-whole

Number line

At home: ask “How do you know?” or “Can you show me another way?”



Number bonds: the foundations

Secure bonds make later calculation easier.

Bonds to 10

$$0 + 10 = 10$$

$$1 + 9 = 10$$

$$2 + 8 = 10$$

$$3 + 7 = 10$$

$$4 + 6 = 10$$

$$5 + 5 = 10$$

Bonds to 20

$$0 + 20 = 20$$

$$1 + 19 = 20$$

$$2 + 18 = 20$$

$$3 + 17 = 20$$

$$4 + 16 = 20$$

$$5 + 15 = 20$$

TRY THIS AT HOME

- “7 and what makes 10?”
- “If $7 + 3 = 10$, what is $10 - 7$?”
- Make it with counters or objects.
- Ask children to explain how they know.

Number bonds are not just facts to memorise: children should understand the relationship between the parts and the whole.

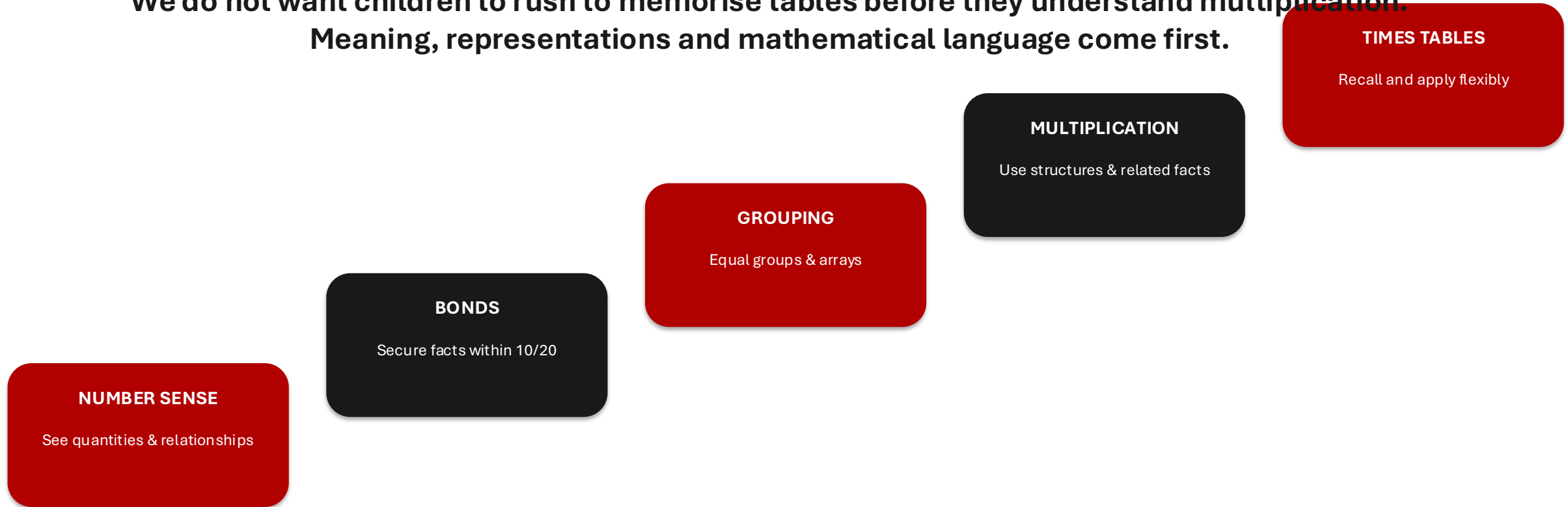


From number bonds to times tables

The knowledge builds: relationships first, automaticity later.

We build from seeing relationships → understanding groups → making connections → fluent recall.

**We do not want children to rush to memorise tables before they understand multiplication.
Meaning, representations and mathematical language come first.**





Times tables: what are we aiming for?

A gradual progression—not a race.

Stage	Typical focus
Reception	Counting in 2s, 5s and 10s through practical grouping.
Year 1	2, 5 and 10 times tables; doubles, halves and arrays.
Year 2	2, 5 and 10, with increasing recall and related division facts.
Year 3	2, 3, 4, 5, 8 and 10, with related division facts.
Year 4	All multiplication and division facts up to 12×12 .
Years 5–6	Secure recall, then apply facts to fractions, factors, multiples and more complex calculations.

By the end of Year 4, the National Curriculum expects pupils to have memorised multiplication and division facts up to 12×12 .



How can parents help with times tables?

Little and often beats a long, stressful session.

1. SAY THEM

Chant or count in the table. Change the rhythm. Ask questions out of order.

2. SHOW THEM

Use arrays, coins, Lego, counters or drawings to make equal groups visible.

3. CONNECT THEM

Link multiplication to division and to facts your child already knows.

4. PLAY

Cards, dice, bingo and quick challenges can make repetition feel like a game.

5. MIX IT UP

Practise known facts as well as new ones. Ask questions in random order.

6. PRAISE EFFORT

Celebrate improvement and thinking—not just speed or a perfect score.

Aim for around 5–10 minutes on most days when possible.



Make the tricky facts easier

Children can use relationships instead of learning every fact in isolation.

×2

Double it
 $7 \times 2 = 14$

×4

Double ×2
 $7 \times 4 = 28$

×8

Double ×4
 $7 \times 8 = 56$

×5

Half ×10
 $8 \times 5 = 40$

×6

×5 + ×1
 $7 \times 6 = 42$

×7

×5 + ×2
 $7 \times 7 = 49$

Ask: “Which fact do you already know that could help you?”



Sumdog: purposeful practice

How it fits alongside our classroom teaching



ENGAGING

Games and challenges give children repeated opportunities to practise key maths skills.

TARGETED

Practice can be set to specific skills, including multiplication and number facts.

INFORMATIVE

Teacher reports can help identify patterns, gaps and next steps alongside other assessment evidence.

For times tables, Sumdog reinforces recall after the underlying ideas have been taught.

- Short, regular practice can strengthen fluency.
- Children receive immediate feedback while working.
- Teachers can use information from practice to plan further support.
- At home, use it as a positive practice opportunity—not a competition or punishment.



A 10-minute maths routine at home

Simple enough to fit into real family life.

2 mins

Warm up

Count in the table or recall a few bonds.

3 mins

Recall

Ask 5–8 questions in mixed order.

2 mins

Explain

Choose one tricky fact: “How could we work it out?”

2 mins

Play

Use cards, dice, Sumdog or a quick game.

1 min

Celebrate

Name one thing that improved.

Stop while it is still positive. Confidence grows when children experience success.



Choose a target number: 10, 20, 50 or 100.

Now turn it into multiplication thinking:

- Make an array with 3 rows of 4.
- Write the multiplication and related division facts.
- Ask: “What do you already know that could help?”

The aim is to talk about the mathematics—not just get an answer.



What we would like families to remember

Five messages to take away

1. Understanding first

Children need to understand what numbers and operations mean.

2. Little and often

Short, regular practice is easier to sustain and builds fluency.

3. Talk about maths

Ask “How do you know?” and “Can you show me?”

4. Make connections

Link known facts to new facts rather than treating every fact separately.

5. Celebrate progress

Confidence and perseverance matter. Every small step counts.

We are working together to help every child feel successful in mathematics.



Questions, support & useful resources

We are here to work with you.

AT SCHOOL

Speak to your child's class teacher if you want to know which number facts or times tables your child is currently working on.

AT HOME

Use short, positive routines. Use the resources the school provides and any Sumdog activities that have been set.

ONLINE

NCETM • Maths Hubs • White Rose Maths
• Sumdog • BBC Bitesize

Our key message

You do not have to teach maths at home. You can notice it, talk about it, practise a little and celebrate your child's progress.



Thank you for working with us

Together, we can build confident, fluent and curious mathematicians.

FLUENCY

REASONING

PROBLEM SOLVING

Questions? Please speak to your child's teacher—we are always happy to help.

Official sources: NCETM • Maths Hubs • White Rose Maths • Sumdog