



Inspire Workshop

Thursday 12th February 2026

Maths in Year 5

Welcome everyone and thank you for coming.

- . Understand Year 5 maths teaching
- . Explore the White Rose curriculum
- . Learn how Mastering Number supports fluency
- . Discover ways to support learning at home
- . Engage in a Maths activity with your child.

What Maths Looks Like in Year 5

- Focus on deep understanding
- Emphasis on reasoning and problem-solving
- Strong number sense
- Concrete → pictorial → abstract approach



A typical Maths lesson involves

- . Revisit of previous learning using Flashback task
- Learning objective shared with the class at the start of the lesson
- Explanation and modelling of the concept or method
- Children have a go on whiteboards before trying independently
- They then use the skill they learnt during the input to solve the challenge (calculation/problem) they have been presented with
- Children encouraged to work independently where appropriate and supported where needed (whiteboards and book work).

White Rose Maths

- Mastery-based curriculum
- Small, carefully sequenced steps
- Consistent models and images
- Encourages mathematical talk
- Aligned with national curriculum



Year 5 Topics

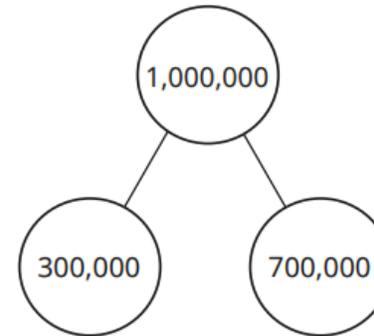
- Autumn: Place Value, Addition & Subtraction, Statistics
- Spring: Multiplication & Division, Fractions, Decimals & Percentages
- Summer: Perimeter & Area, Shape, Position & Direction, Converting Units, Volume

Place Value in Year 5

- Numbers to 1,000,000
- Powers of 10
- Rounding
- Number lines

Here are two ways of partitioning one million into multiples of 100,000

1,000,000	
600,000	400,000



How many other ways can you find to partition one million into multiples of 100,000?

Show your answers as bar models and part-whole models.



There are four more ways:

- 0 and 1,000,000
- 100,000 and 900,000
- 200,000 and 800,000
- 500,000 and 500,000

The numbers can be written in either order.

Fractions in Year 5

- Equivalent fractions
- Improper \leftrightarrow mixed numbers
- Adding & subtracting fractions
- Multiplying fractions by integers

Find the missing numbers.

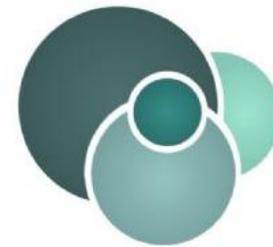
$$2\frac{\square}{8} \times \square = 7\frac{7}{8}$$

Explain how you worked out the missing numbers.

$$2\frac{5}{8} \times 3 = 7\frac{7}{8}$$

What Is Mastering Number?

- Strengthens number sense
- Daily short sessions
- Subitising and number facts
- Multiplicative thinking



NCETM

NATIONAL CENTRE FOR EXCELLENCE
IN THE TEACHING OF MATHEMATICS

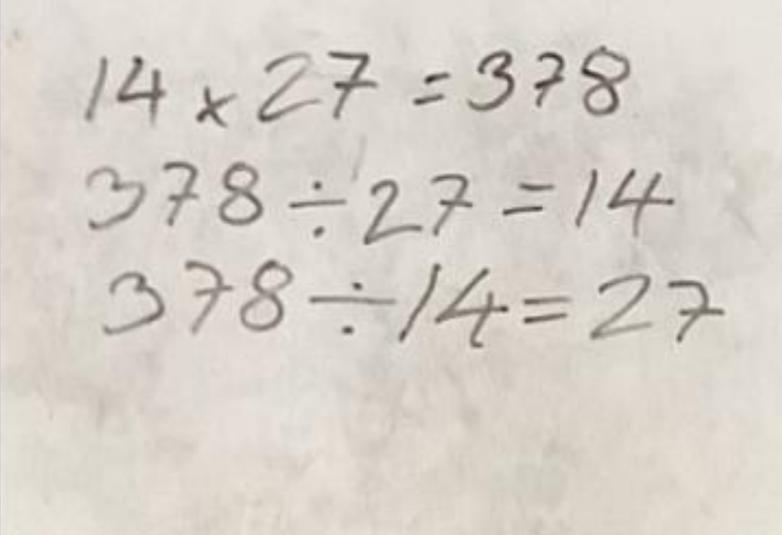
Why Mastering Number Matters

- Builds confidence
- Reduces cognitive load
- Helps children spot patterns
- Supports reasoning



Mastering Number Activities

- Dot pattern subitising
- Number line estimation
- “What’s the same? What’s different?”
- Quick recall of number facts
- Multiplicative relationships

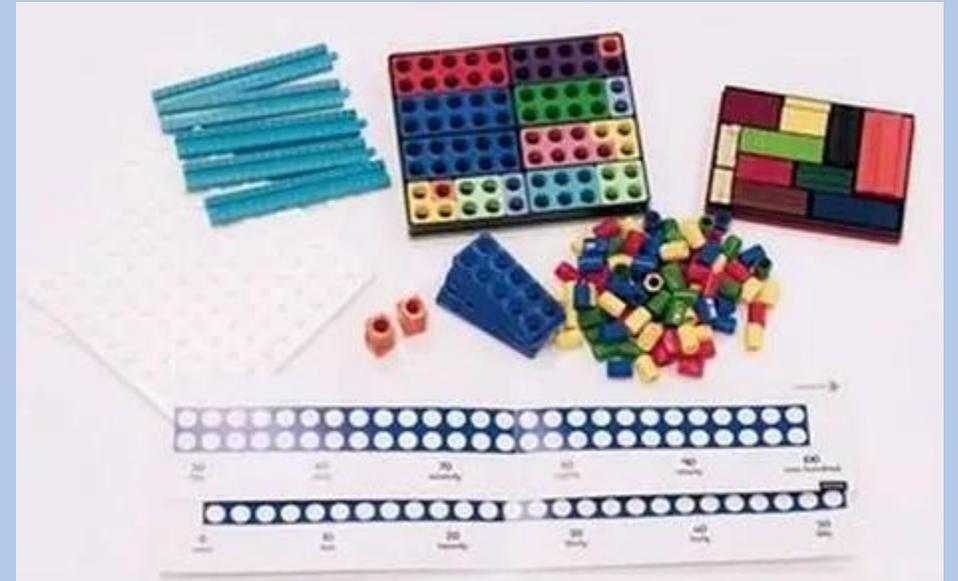


Handwritten mathematical equations on a piece of paper:

$$14 \times 27 = 378$$
$$378 \div 27 = 14$$
$$378 \div 14 = 27$$

Supporting all Learners

- Scaffolding and manipulatives
- Mixed-ability teaching
- Same learning goal, different support
- Challenge through depth



How to Help at Home

- Encourage maths talk
- Practise times tables
- Use real-life maths
- Play games
- Avoid early shortcuts

How to Help at Home

- Positive mindset
- Play maths games together
- Learn times tables – games , chanting and singing
- Use money (where possible) – budgeting.
- Cooking with them
- Involve them in problem solving
- Use fractions in daily life.



Multiplication

Progression of skills	Key representations																																																								
<p>Multiply numbers up to 4 digits by a 1-digit number</p> <p>This builds on the short multiplication method introduced in Y4</p>	<p>To multiply a 4-digit number by ... , I multiply the ones by ... , the tens by ... , the hundreds by ... and the thousands by ...</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <table border="1" style="border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 20px;">Th</th> <th style="width: 20px;">H</th> <th style="width: 20px;">T</th> <th style="width: 20px;">O</th> </tr> </thead> <tbody> <tr> <td>1,000</td> <td>100</td> <td>10 10 10 10 10</td> <td>1 1</td> </tr> <tr> <td>1,000</td> <td>100</td> <td>10 10 10 10 10</td> <td>1 1</td> </tr> <tr> <td>1,000</td> <td>100</td> <td>10 10 10 10 10</td> <td>1 1</td> </tr> </tbody> </table> <div style="border: 1px solid black; padding: 5px; margin-left: 20px;"> <table style="border-collapse: collapse; text-align: right;"> <tr><td style="width: 20px;">1</td><td style="width: 20px;">1</td><td style="width: 20px;">5</td><td style="width: 20px;">2</td></tr> <tr><td colspan="4">x</td></tr> <tr><td colspan="3">_____</td><td>3</td></tr> <tr><td colspan="4">_____</td></tr> </table> </div> </div>		Th	H	T	O	1,000	100	10 10 10 10 10	1 1	1,000	100	10 10 10 10 10	1 1	1,000	100	10 10 10 10 10	1 1	1	1	5	2	x				_____			3	_____																										
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<p>Multiply numbers up to 4 digits by a 2-digit number</p> <p>Numbers are first partitioned using an area model then long multiplication is introduced for the first time.</p>	<p>I can partition ... into ... and ...</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td>x</td> <td>●●●●</td> <td>●●●●</td> </tr> <tr> <td>●</td> <td>●●●●</td> <td>●●●●</td> </tr> </table> <table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td>x</td> <td>40</td> <td>4</td> </tr> <tr> <td>30</td> <td>1,200</td> <td>120</td> </tr> <tr> <td>2</td> <td>80</td> <td>8</td> </tr> </table> </div> <p>$32 \times 44 = 1,200 + 80 + 120 + 8$ $32 \times 44 = 1,408$</p>	x	●●●●	●●●●	●	●●●●	●●●●	●	●●●●	●●●●	●	●●●●	●●●●	●	●●●●	●●●●	x	40	4	30	1,200	120	2	80	8	<p>First, I multiply by the ... Then I multiply by the ...</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td>x</td> <td>10</td> <td>3</td> </tr> <tr> <td>30</td> <td>300</td> <td>90</td> </tr> <tr> <td>2</td> <td>20</td> <td>6</td> </tr> </table> <div style="border: 1px solid black; padding: 5px; margin-left: 20px;"> $300 + 90 + 20 + 6 = 416$ </div> <div style="border: 1px solid black; padding: 5px; margin-left: 20px;"> <table style="border-collapse: collapse; text-align: right;"> <tr><td style="width: 20px;">3</td><td style="width: 20px;">2</td></tr> <tr><td colspan="2">x</td></tr> <tr><td colspan="2">_____</td></tr> <tr><td>9</td><td>6</td></tr> <tr><td colspan="2">_____</td></tr> <tr><td>3</td><td>2</td><td>0</td></tr> <tr><td colspan="3">_____</td></tr> <tr><td>4</td><td>1</td><td>6</td></tr> <tr><td colspan="3">_____</td></tr> </table> <div style="margin-left: 20px;"> <p>(32 × 3)</p> <p>(32 × 10)</p> </div> </div> </div>	x	10	3	30	300	90	2	20	6	3	2	x		_____		9	6	_____		3	2	0	_____			4	1	6	_____		
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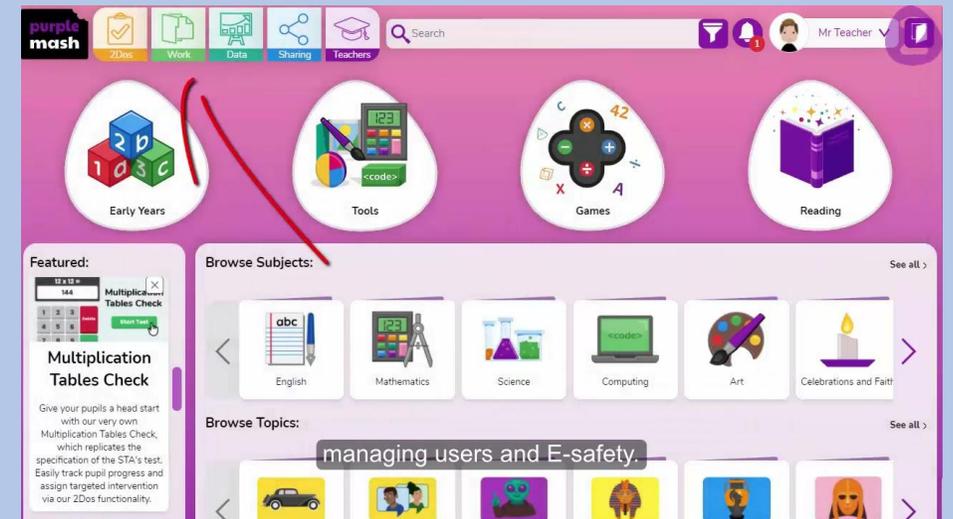
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Useful Resources

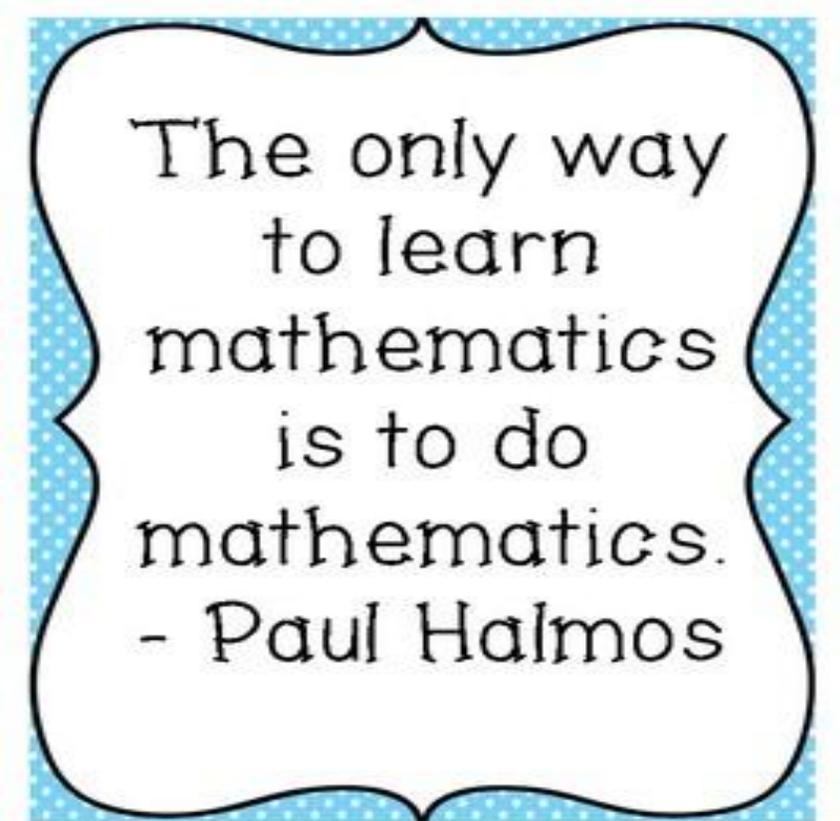
- Times Table Rock Stars
- Numbots
- Top marks website
- Purple Mash



Supporting maths doesn't require being "good at maths"

It is about being curious and encouraging.

Thankyou for your continued support!

A quote by Paul Halmos is presented in a white, scalloped-edged frame with a blue dotted border. The text inside the frame reads: "The only way to learn mathematics is to do mathematics. - Paul Halmos". The background of the entire slide is light blue and features faint, hand-drawn mathematical sketches such as a graph, a calculator, a star, and various symbols.

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