Brackenwood Junior School

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Aims for the session

- Familiarisation of maths intent and how we teach maths
- Calculation policy
- Importance of reasoning
- Practice some arithmetic skills
- Meet staff and have fun with your child!

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There's lots of detail on maths on our website…

https://www.brackenwood-junior.wirral.sch.uk/web/maths/600706

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Maths Intent

At Brackenwood Juniors, we follow the Powermaths Scheme. We adapt it to the needs of our children through questioning, support and challenge tasks. Individual year group's long term plans can be found on our website.

Maths implementation

At Brackenwood Juniors, our curriculum is designed to ensure that all children have the opportunity to reach the expected standard (and beyond) at the end of Year 6. We use the Powermaths scheme and supplement it with support materials and NCETM challenge activities to ensure our curriculum is challenging but accessible for all. Daily practice of arithmetic and planned lesson starters ensure fluency is addressed. Times tables are taught once a week along with a weekly homework on TT Rock Stars. Knowledge retrieval is key to long term understanding. Therefore, maths lessons start with a 'power up', which reinforces previous lessons. During our mathematics lessons, all children are taught how to use various representations to show their thinking. Talking and explaining, using technical mathematical language, is key to success. This can be seen through the use of sentence stems and working walls.

Calculation policy

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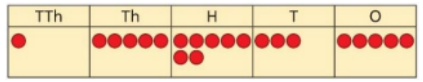
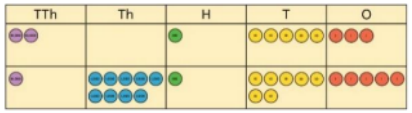
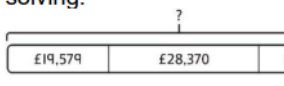
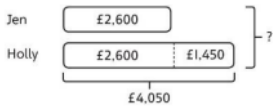
Year 5			
	Concrete	**Pictorial**	**Abstract**
Year 5 Addition			
Column addition with whole numbers	Use place value equipment to represent additions. *Add a row of counters onto the place value grid to show 15,735 + 4,012.* 	Represent additions, using place value equipment on a place value grid alongside written methods.  *I need to exchange 10 tens for a 100.* TTh Th H T O 2 0 1 5 3 + 1 9 1 7 5 3 9 3 2 8	Use column addition, including exchanges. TTh Th H T O 1 9 1 7 5 + 1 8 4 1 7 3 7 5 9 2
Representing additions		Bar models represent addition of two or more numbers in the context of problem solving.   Th H T O 2 6 0 0 + 1 4 5 0 Th H T O 2 6 0 0 + 4 0 5 0	Use approximation to check whether answers are reasonable. TTh Th H T O 2 3 4 0 5 + 7 8 9 2 2 0 2 9 7 TTh Th H T O 2 3 4 0 5 + 7 8 9 2 3 1 2 9 7 *I will use 23,000 + 8,000 to check.*

This is a large document. Here is an example. You can find the full policy on our website.

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The importance of reasoning

The ability to reason has a fundamental impact on one's ability to learn from new information and experiences because **reasoning skills determine how people comprehend, evaluate, and accept claims and arguments.**

Reasoning and sense making are critical in mathematics learning because **students who genuinely make sense of mathematical ideas can apply them in problem solving and unfamiliar situations and can use them as a foundation for future learning.**

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Examples of mathematical language in sentence stems to support reasoning and mathematical knowledge

Subtraction in Y5

I've added ___ to both the minuend and the subtrahend, so the difference stays the same.

I've subtracted ___ from both the minuend and the subtrahend, so the difference stays the same.

I've added ___ to the minuend (subtrahend), so I need to add ___ to the subtrahend (minuend) to keep the difference the same.

I've subtracted ___ from the minuend (subtrahend), so I need to subtract ___ from the subtrahend (minuend) to keep the difference the same.

I've added ___ to the minuend and kept the subtrahend the same, so I must add ___ to the difference.

I've subtracted ___ from the minuend and kept the subtrahend the same, so I must subtract ___ from the difference.

I've kept the minuend the same and added ___ to the subtrahend; so I must subtract ___ from the difference.

I've kept the minuend the same and subtracted ___ from the subtrahend; so I must add ___ to the difference.

Arithmetic time!

$58 + 49 =$

$799 + 371 =$

$\square - 54{,}146 = 26{,}447$

Addition in Y5

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Arithmetic time!

- 46,467 + 4701 =
- 56,578 + 61098 =

Arithmetic time!

- 46,467 + 4701 = 51,168
- 56,578 + 61098 = 117,676

Arithmetic time!

725 – 301 =

89,387 – 70,927 =

49,422 + ☐ = 90,865

Subtraction in Y5

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Arithmetic time!

67,930 – 430 =

56,809 – 43,732 =

Subtraction in Y5

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Arithmetic time!

67,930 – 430 = 67, 500

56,809 – 43,732 = 13,077

Subtraction in Y5

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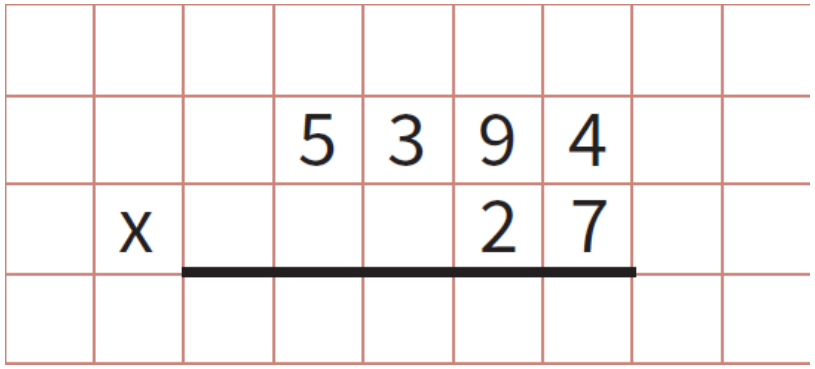
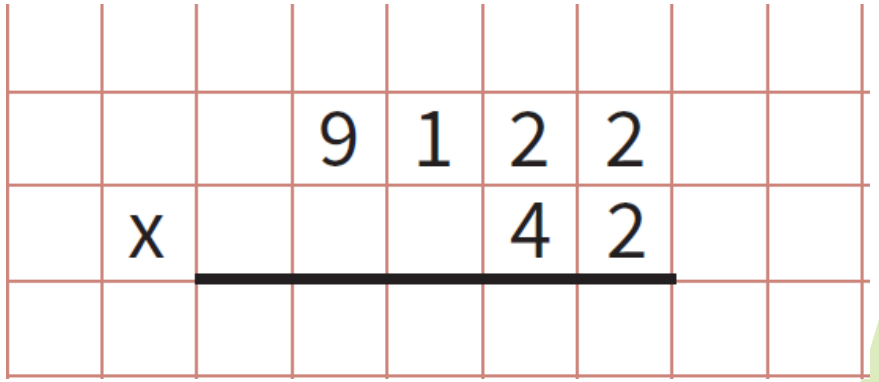
Arithmetic time!





Multiplication in Y5

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Arithmetic time!

			5	3	9	4		
	x				2	7		

37,758

			9	1	2	2		
	x				4	2		

383,124

Multiplication in Y5

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Arithmetic time!

$625 \div 25 =$

$467 \div 10 =$

$852 \div \square = 852$

$\frac{3}{4}$ of $84 =$

Division in Y5

Arithmetic time!

785 divided by 5 =

3642 divided by 6 =

9431 divided by 7 =

Arithmetic time!

785 divided by 5 = 157

3642 divided by 6 =
607

9431 divided 7 =
1347r2 Division in Y5

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