Brackenwood Junior School

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Brackenwood Junior School

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

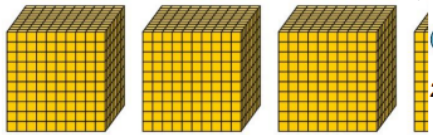
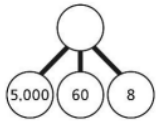
At Brackenwood Juniors, we follow the Powermaths Scheme. We adapt it to the needs of our children through questioning, support and challenge tasks. Individual year group's long term plans can be found on our website.

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

Power Maths calculation policy

Year 4			
	Concrete	**Pictorial**	**Abstract**
Year 4 Addition			
Understanding numbers to 10,000	Use place value equipment to understand the place value of 4-digit numbers.  *4 thousands equal 4,000.* *1 thousand is 10 hundreds.*	Represent numbers using place value counters once children understand the relationship between 1,000s and 100s.  *2,000 + 500 + 40 + 2 = 2,542*	Understand partitioning of 4-digit numbers, including numbers with digits of 0.  *5,000 + 60 + 8 = 5,068* Understand and read 4-digit numbers on a number line. 
Choosing mental methods where appropriate	Use unitising and known facts to support mental calculations. *Make 1,405 from place value equipment.* *Add 2,000.* *Now add the 1,000s.* *1 thousand + 2 thousands = 3 thousands* *1,405 + 2,000 = 3,405*	Use unitising and known facts to support mental calculations.  *I can add the 100s mentally.* *200 + 300 = 500* *So, 4,256 + 300 = 4,556*	Use unitising and known facts to support mental calculations. *4,256 + 300 = ?* *2 + 3 = 5* *200 + 300 = 500* *4,256 + 300 = 4,556*

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

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

Addition and Subtraction in Y4

	NCETM additional language support (sentence stems)	NCETM general statements / additional phrases
1.22	___ hundred plus ___ hundred is equal to ___ hundred. We know there are ten hundreds in one thousand, so ___ hundred plus ___ hundred is equal to ___ thousand ___ hundred. We know there are ten hundreds in one thousand, ___ thousand ___ hundred is equal to ___ hundred. ___ hundred minus ___ hundred is equal to ___ hundred. a is between ___ and ___ . The previous multiple of one thousand is ___ . The next multiple of one thousand is ___ . a is nearest to ___ thousand. a is ___ when rounded to the nearest thousand.	There are ten hundreds in one thousand. There are one hundred tens in one thousand. There are one thousand ones in one thousand. When rounding to the nearest ten, the ones digit is the digit to consider. If it is four or less we round down. If it is five or more we round up. When rounding to the nearest hundred, the tens digit is the digit to consider. If it is four or less we round down. If it is five or more we round up. When rounding to the nearest thousand, the hundreds digit is the digit to consider. If it is four or less we round down. If it is five or more we round up.

Arithmetic time!

4078 + 7806=

Now it's time for you to have a go!

1.3020+7033 =
2.8389+2094=
3.1938+8398=

Arithmetic time!

4078 + 7806= 11,884

Now it's time for you to have a go!

1.2541+5235= 7776
2.8389+2094= 10,483
3.1938+8398= 10,333

Arithmetic time!

7894-3918=

Now it’s time for you to have a go!

1. 8017-5004=
2. 7425+6773=
3. 9882-6443=

Arithmetic time!

7894-3918= 3976

Now it's time for you to have a go!

1. 8017-5004= 3013
2. 7425+6773= 652
3. 9882-6443= 3439

Arithmetic time!

725 x 3 =

Now it's time for you to have a go!

1. 34 x 4 =
2. 607 x 6=
3. 573 x 5=

Arithmetic time!

725 x 3 = 2175

Now it's time for you to have a go!

1. 34 x 4 = 136
2. 607 x 6= 3642
3. 573 x 5= 2865

Arithmetic time!

312 ÷ 5 =

Now it's time for you to have a go!

1. 196 ÷ 7=
2. 148 ÷ 4=
3. 405 ÷ 7=

Arithmetic time!

312 ÷ 5 = 62 r4

Now it's time for you to have a go!

1. 196 ÷ 7= 28
2. 148 ÷ 4= 37
3. 405 ÷ 6= 67 r5