

# Brackenwood Junior School



**Oak Trees**

MULTI ACADEMY TRUST



# 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!





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

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





## 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 NCEM 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 expectation of using TT Rock Stars at home. 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

Year 6			
	Concrete	Pictorial	Abstract
<b>Year 6 Addition</b>			
<b>Comparing and selecting efficient methods</b>	<p>Represent 7-digit numbers on a place value grid, and use this to support thinking and mental methods.</p>	<p>Discuss similarities and differences between methods, and choose efficient methods based on the specific calculation. Compare written and mental methods alongside place value representations.</p> <p>Use bar model and number line representations to model addition in problem-solving and measure contexts.</p>	<p>Use column addition where mental methods are not efficient. Recognise common errors with column addition.</p> <p><math>32,145 + 4,302 = ?</math></p> <p><i>Which method has been completed accurately?</i></p> <p><i>What mistake has been made?</i></p> <p>Column methods are also used for decimal additions where mental methods are not efficient.</p>

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.





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

If I multiply the divisor by \_\_ and keep the dividend the same, I must divide the quotient by \_\_.

If I divide the divisor by \_\_ and keep the dividend the same, I must multiply the quotient by \_\_.

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The \_\_ represents the \_\_.

The dividend is \_\_.

The divisor is \_\_ because \_\_\_\_\_.

The mean is  $\_ \div \_ = \_$ .



# Arithmetic time!

$$26,981 + 17,982 =$$

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

$$1. 53,148 + 16,855 =$$

$$2. 48,922 + 36,558 =$$

$$3. 78,556 + 35,825 =$$

Addition in Y6







# Arithmetic time!

$$26,981 + 17,982 = 44,963$$

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

1.  $53,148 + 16,855 = 70,003$

2.  $48,922 + 36,558 = 85,480$

3.  $78,556 + 35,825 = 114,381$

Addition in Y6



# Arithmetic time!

$$35,725 - 17,829 =$$

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

$$1. 72,522 - 16,825 =$$

$$2. 58,486 - 35,294 =$$

$$3. 90,205 - 48,655 =$$

Subtraction in Y6



# Arithmetic time!

$$35,725 - 17,829 = 17,896$$

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

$$1. 72,522 - 16,825 = 55,697$$

$$2. 58,486 - 35,294 = 23,192$$

$$3. 90,205 - 48,655 = 41,550$$

Subtraction in Y6



# Arithmetic time!

$$236 \times 15 =$$

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

$$1. 354 \times 15 =$$

$$2. 522 \times 16 =$$

$$3. 688 \times 24 =$$

Multiplication in Y6



# Arithmetic time!

$$236 \times 15 = 3,540$$

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

$$1. 354 \times 15 = 5,310$$

$$2. 522 \times 16 = 8,352$$

$$3. 688 \times 24 = 16,512$$

Multiplication in Y6



# Arithmetic time!

$$308 \div 11 =$$

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

$$1. 352 \div 11 =$$

$$2. 517 \div 11 =$$

$$3. 636 \div 12 =$$

Division in Y6



# Arithmetic time!

$$308 \div 11 = 28$$

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

$$1. 352 \div 11 = 32$$

$$2. 517 \div 11 = 47$$

$$3. 636 \div 12 = 53$$

Division in Y6

