Bleak Hill Primary Maths Newsletter

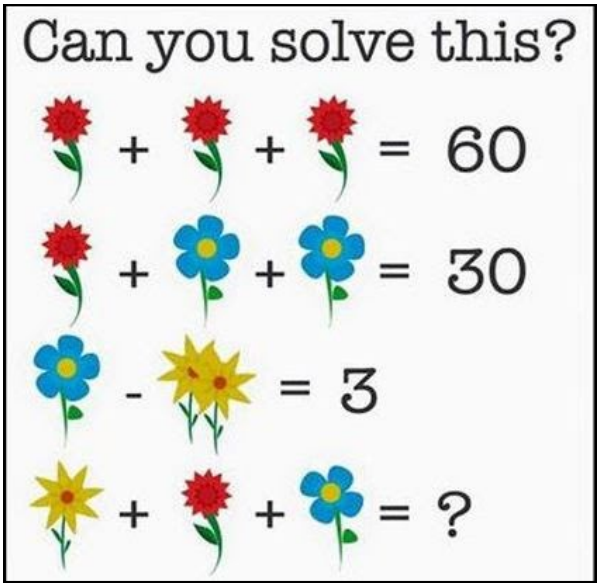
Spring Edition

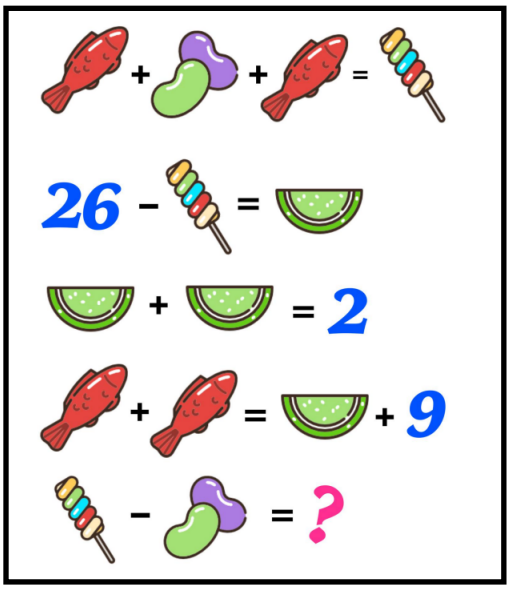
Welcome!

Welcome to the first (hopefully of many) termly Maths Newsletters from Bleak Hill Primary School. Each newsletter will spotlight maths within our school, feature a famous mathematician, explain key strategies that are taught in school, offer ways that you can help to support your child with their maths at home and pose a few challenges for you and your children to try out.

Mr Harrison (Maths Subject Lead)

Puzzle it Out!





If you can solve these puzzles, bring the answers to me and I will see if you are correct. There may be a reward for the first few pupils with correct answers!

Clever Carl

Carl Friedrich Gauss (1777-1855) is recognised as being one of the greatest mathematicians of all time. During his lifetime he made significant contributions to almost every area of mathematics, as well as physics, astronomy and statistics. Like many of the great mathematicians, Gauss showed amazing mathematical skill from an early age, and there are many stories which show how clever he could be.

The most well-known story is a tale from when Gauss was still at primary school. One day Gauss' teacher asked his class to add together all the numbers from 1 to 100, assuming that this task would occupy them for quite a while. He was shocked when young Gauss, after a few seconds thought, wrote down the answer 5050. The teacher couldn't understand how his pupil had calculated the sum so quickly in his head, but the eight year old Gauss pointed out that the problem was actually quite simple.

He had added the numbers in pairs - the first and the last, the second and the second to last and so on, observing that $1+100=101$, $2+99=101$, $3+98=101$, ...so the total would be 50 lots of 101, which is 5050.

It is remarkable that a child still in primary school had discovered this method for summing sequences of numbers, but of course Gauss was a remarkable child. Fortunately his talents were discovered, and he was given the chance to study at university. By his early twenties, Gauss had made discoveries that would shape the future of mathematics.

While the story may not be entirely true, it is a popular tale for maths teachers to tell because it shows that Gauss had a natural insight into mathematics. Rather than performing a great feat of mental arithmetic, Gauss had seen the structure of the problem and used it to find a short cut to a solution.

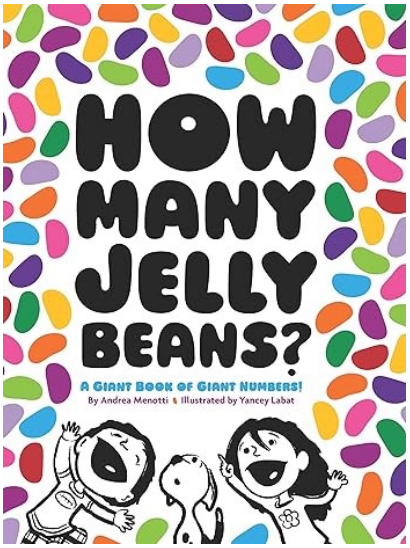
Gauss could have used his method to add all the numbers from 1 to any number - by pairing off the first number with the last, the second number with the second to last, and so on, he only had to multiply this total by half the last number, just one swift calculation.

Marvellous Mathematicians

Maths In School

To celebrate mathematics within school we held a 'Number Day'. It was lovely to see all of the children taking part in a variety of activities. The activities were all centred around the book 'How Many Jellybeans?' which I read to the children in collective worships that week. There was a real buzz around school during the whole day and into the 'Power Hour' that followed.

Thankyou for your support.



Key facts we have been learning this term?

EYFS

I can partition numbers, to 5, into two groups.

I can say the days of the week in order.

Y1

I know doubles and halves to 10.

I bonds to 10.

Y2

I know doubles and halves to 20.

I know the facts for the 10 times tables.

Y3

I can recall facts about time durations.

I know the facts for the 4 times tables.

Y4

I know the facts for the 9 and 11 times tables.

Recognise decimal equivalents of fractions.

Y5

I can recall metric conversions.

I can identify prime numbers up to 20.

Y6

Convert between fractions, decimals and percentages.

I can identify prime numbers up to 50.

These Key Facts are taken from the KIRF sheets for each year group which can be found on the website. The KIRFs give an indication of what the pupils should be able to recall at that stage within the year.

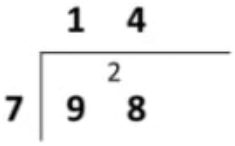
Maths...Let's Do It!

In this section we will go over an area of maths that parents have directly asked for to help guide or support their child. If there is ever a question you have about a method used to teach a maths objective—please ask the class teacher. We will always try to help as best we can.

What is the bus stop method?

The bus stop method is a quick, formal written method of division. It is named after its 'bus stop' appearance. The dividend (number being divided) is inside the 'bus stop'; the divisor (what the dividend is being divided by) is outside the 'bus stop'; and the quotient (the answer, or how many times the divisor fits into the dividend) is on top of the 'bus stop'.

The bus stop method for division step by step:

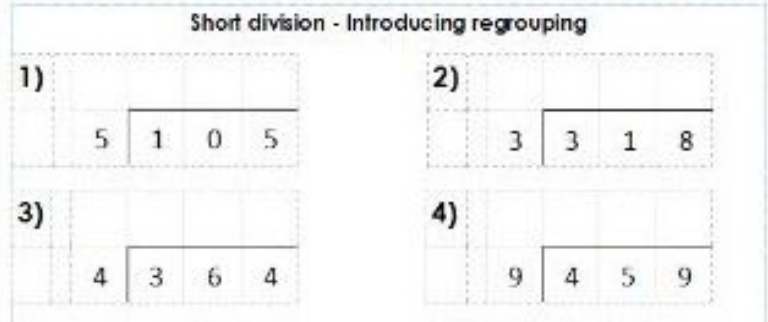


Bus stop division begins at the largest place value (the left), unlike the formal methods of addition, subtraction and multiplication where the procedure begins from the smallest place value (the right).

Let's take the example 98 ÷ 7, such as the first example in the national curriculum appendix, to explore the bus stop method for division step by step.

1. Starting on the left we divide 9 tens by 7 tens.
2. 7 tens goes into 9 tens once with 2 tens left over, so we place a 1 on top (which is the first digit of the quotient)
3. Next, we regroup the 2 tens into 20 ones and alongside the next number, the 8 ones which now becomes 28 ones.
4. Finally, 28 ones (or just 28) ÷ 7 ones is 4, so 4 becomes the last digit of the quotient.
5. Therefore, our answer is 14.

Try these out and see how you get on.



The need to understand multiplication facts is essential to successfully attempting division. For the questions here, you would need a secure knowledge of 3s, 4s, 5s and 9s to fully embrace the method.

This type of question would appear in Y3. They may not yet have the confidence with the 9 times table so using multiplication charts would be a good idea to help develop their own understanding of the method.