



MATHS NEWSLETTER



Welcome to Swalecliffe School's Term 4 Maths Newsletter

Welcome to the next issue of the Maths Newsletter! Each one will feature a mathematician, a maths strategy that we teach in school, some KS1 and KS2 maths challenges, top tips for helping your child with maths at home and maths book recommendations for you to enjoy with your child.

Mathematician

Florence Nightingale (1820 – 1910)

Florence Nightingale, known as “The Lady with the Lamp”, was not only a revolutionary nurse but also a pioneer in visual statistics.

She benefitted from her father’s advanced ideas about women’s education. Along with her sister, she studied many subjects including history, mathematics, and philosophy; from an early age she displayed an extraordinary ability for collecting and analysing data.

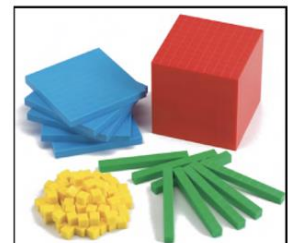


In the 1850s, she worked as a nurse during the Crimean War. At the time, no one knew that diseases were caused by germs, but she was still shocked by the dirty and unsanitary conditions the wounded soldiers lived in. Following the war, with the support of Queen Victoria, she helped create a Royal Commission into the health of the army. They discovered that, out of the 18,000 wartime deaths in the army, 16,000 were not from battle; instead, they were from preventable diseases. Florence Nightingale presented the findings in a new type of pie chart, now known as a “Nightingale Rose Diagram”, which made the complicated data accessible to all.

Maths Strategies

Calculation Strategy: Base 10 (Dienes) for addition and subtraction.

These are a fantastic way for children to understand the relationship between ones, tens, hundreds and thousands. Addition and subtraction should first be done without the need for any exchanging, so that children understand these relationships. Written calculations should be modelled alongside the concrete and pictorial representations to strengthen this understanding.



Tens	Ones
3 rods	8 dots
2 rods	3 dots
+ 23	
6 rods	1 dot
= 61	

1

Tens	Ones
5 rods	5 dots
2 rods	8 dots
- 28	
3 rods	7 dots
= 37	

5 1

Hundreds	Tens	Ones
2 squares	6 rods	5 dots
1 square	6 rods	4 dots
+ 164		
3 squares	2 rods	9 dots
= 429		

1

Hundreds	Tens	Ones
3 squares	3 rods	5 dots
2 squares	7 rods	3 dots
- 273		
1 square	6 rods	2 dots
= 262		

3 1

Addition with exchanging

Subtraction by exchanging

Top Tips



To help your child with maths at home, you could try some of these top tips:



Compare lengths and heights.



Use Lego bricks for non-standard measurement of length.



Use sweets or other objects for non-standard measurement of perimeter.



Use string to introduce the measurement of circumference.

KS1 and KS2 Maths Challenges

KS1

Pick a pair

Choose from these numbers.



- Pick a pair of numbers.
Add them together.
Write the numbers and the answer.

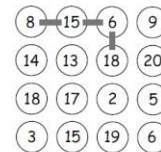
Pick a different pair of numbers.
Write the numbers and the answer.

Keep doing it.
How many different answers can you get?
- Now take one number from the other.
How many different answers can you get now?

KS2

Joins

Join any four numbers.
Find their total.
Joins can go up, down or sideways, but not diagonally.
The score shown is $8 + 15 + 6 + 18 = 47$.

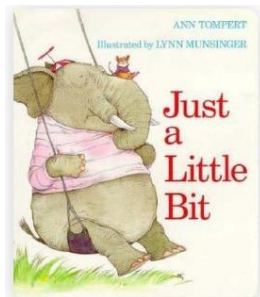


Find the highest possible score.
Find the lowest possible score.

Try joining five numbers.
Now try joining five numbers using only diagonal joins.

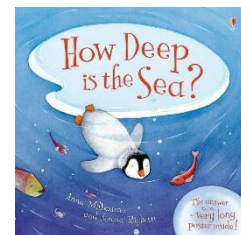
Maths book recommendations

Just a Little Bit By Ann Tompert



When an elephant and a mouse try to play on a seesaw, they need help from a vast number of animal friends to balance the scales.

How Deep is the Sea By Anna Milbourne



How deep is the sea? Pipkin the inquisitive penguin wants to know just that. With the help of a friendly seal, a big blue whale and a salty sea dog in a yellow submarine, Pipkin learns that the sea is very deep indeed! A VERY long poster (1.6 x 0.2m) at the back of the book shows just how deep the sea is - and how far Pipkin would have to travel to get so deep.

Thank you for taking the time to read this term's Maths Newsletter; I hope that you have found it useful. I am always here to answer any questions that you may have about your child's learning in maths and offer any advice, as are your child's class teachers.

Miss Fry
Assistant Head and Maths Lead