



Manor Maths Newsletter

November 2019

At The Manor, we **aspire** for our children to become confident, analytical mathematicians. We **believe** that all children are capable of succeeding and developing their mathematical knowledge. This enables our learners to **achieve** the mathematical skills needed to live successfully and be competent and confident mathematicians.

Focus On:

Fluency

For our first Maths Newsletter, we are focussing on the importance of fluency and instant recall of number facts.

It is vital that children know specific addition facts and times tables facts. Familiarity and proficiency in these facts are essential building blocks for many other areas of mathematics. Also, knowing these facts it frees up working memory to focus on new areas of learning and allows for more efficient and accurate calculation. Most importantly, it can really help learners grow in confidence regarding their own maths abilities. We aim for children to be able to recall these facts as quickly as they can recall their own name (this shows they really know it and are not calculating it).

We spend time in school focusing on the mathematical structures and patterns that lie beneath these facts, along with ensuring children have a deep understanding of what addition and multiplication actually are. However, in order for children to be able to instantly recall these facts, it is essential that they are practising regularly. Little and often is the best approach.

To support the development of your child's fluency with facts we have re-subscribed to Times Tables Rockstars (for times tables) and also subscribed to Numbots (this supports the development of those early addition facts) for the first time.

All children from YR – Y6 have an account for either Numbots or TT Rockstars – ask your child's teacher if you need help with logging on or further details.

Next week (11th-16th November) is Maths Week England. As part of this TT Rockstars are running a national competition. Get playing on TT Rockstars during this week for the possibility of winning prizes or certificates!



Maths At Home

We would love to hear about the Maths you are doing at home. Please could you send in photos of you doing Maths as a family. This could be playing board games, weighing ingredients for a recipe, trying out the 'problem shared' questions or anything else.

Either send them in via your child's homework books or email them to ManorPrimary@sgmail.org.uk FAO Mrs Sweet and we will share them with our school community.



Talking about Mathematics



Do you ever say, "I'm really bad at Maths" or "I was never good at Maths either"? It's only a small thing, but your children can pick up on negativity towards subjects and, unfortunately, this can be a real barrier to their learning. We advise parents to try and use positive language when talking about Maths around your children. Try talking about the excitement of a challenge and how great it feels to achieve things after working hard on them. Your positivity may well improve their maths attitude and achievements.

If your child knows the number facts that are being practised by the class at that time then WELL DONE!

They can now practise applying these facts to further develop their fluency. Can they solve missing number problems? Can they solve problems involving inverse operations relating to these facts? Can they apply their knowledge to multiples of 10?

Eg, for 3 times tables.

Missing numbers: $3 \times \underline{\quad} = 21$ Inverse operations: $33 \div 3 = \underline{\quad}$ Multiples of 10: $3 \times 50 = \underline{\quad}$

Mathematicians making their mark.



Katherine Johnson

In 1962, as NASA prepared for an orbital mission. They were beginning to use electronic calculating machines (computers) but many people, including the astronauts were extremely wary of them as they had not been used before. The computers had been programmed with the equations that would control the trajectory of the capsule but, as part of the pre-flight checklist, Katherine Johnson was required to run the same numbers by hand. She then confirmed if they were accurate and whether John Glenn was safe to go into space. Glenn's flight was a success and it marked a turning point in the competition between the United States and the Soviet Union in space.

Want to know more?

Counting on Katherine – Helaine Becker

Hidden Figures – Margot Shetterly

<https://www.nasa.gov/audience/forstudents/k-4/stories/nasa-knows/who-is-katherine-johnson-k4>

A problem shared ...

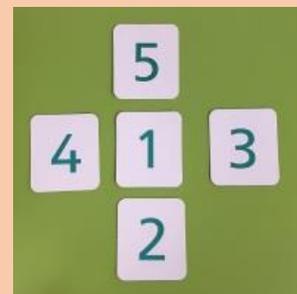
Have a go at these problems together with your children and enjoy the challenge!



Lolla bought a balloon at the circus. She gave the clown six coins to pay for it.

What could Lolla have paid for the balloon?

Which of your answers seems a reasonable amount to pay for a balloon?



This is a Magic Cross. We call it a Magic Cross because its horizontal total is equal to its vertical total.

Can you find any more magic crosses using the same digits? Convince yourself you have found them all.

Want another challenge? Consider these questions:

Are there any magic crosses that use the numbers 2,3,4,5,6? Or 3,4,5,6,7? Or 98,99,100,101,102?

How many magic crosses can you find with the number 50 in the middle?

Enjoyed these?

Take a look at <https://mathsweekengland.co.uk/primary-school-resources/> or <https://nrich.maths.org/primary>. Don't forget, Purple Mash has many maths activities for you to explore too.