Manor Maths Newsletter

September 2020

*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.*

K.I.R.Fs

As you know, we have changed our Mathematics home learning to focus on developing children's fluency skills. We will be doing this with a selection of Key Instant Recall Facts (K.I.R.Fs) for each class each term.

At The Manor, we aim for all children to understand the mathematical processes we teach. However, once they understand how to calculate, if they are able to instantly recall a certain fact, it frees up their working memory to be able to focus on more complex processes and procedures. K.I.R.Fs are designed to support the development of the mental skills that underpin much of the mathematics work in school.

All children will be taught and will have the opportunity to explore these K.I.R.Fs in school. However, further rehearsal as part of home learning is required to strengthen this knowledge and increase the speed of recall.

There are a variety of ways these facts can be learned and practised at home but if you are unsure about where to start, consider the approaches detailed below.

1) See what your child already knows. Do they already know any of these facts? Can they count in steps of 4 (skip counting) even if they do not instantly know what 5 x 4 is? Once you have found out what they know, you will know which of these facts you need to concentrate on. Focus your time on the bits they don't know yet.

2) Break it down. You have a whole term to consolidate this learning. Split the parts they don't know across the weeks and days.

   For example, for the 5 times table - For the first few days just focus on the key facts of 5 x 1 and 5 x 0 (and the alternatives 0 x 5 and 1 x 5). Then move on to 2 x 5 and 10 x 5. Slowly increase the number of facts they are rehearsing each day. Once they are confident with these, begin to practise the related division facts.

3) Variety is key. Try to think of different ways to practise these facts: Verbal questioning, flashcards, ICT games, challenge your parents/siblings, draw pictures to represent the facts, board games, chanting, songs.

4) Speed and accuracy. Once your child is confident with the facts, challenge them to beat their previous speed. TT Rockstars and Numbots can be useful for some of the KIRFS.

Mathematicians making their mark.

Maryam Mirzakhani

(1977 – 2017)

Many people believe that Mathematics is all about numbers and rules but Maryam believed Maths was about visual patterns and ideas.

She said that she approached Maths as detective work – as a problem that needed to be solved and she celebrated different approaches to solving the same problem. Although she struggled with Maths as a child, as an adult it became her passion and she loved working on mathematical challenges exploring them slowly and with deep thought.

In 2014, she was the first women to be awarded the Fields Medal (the most prestigious award in Mathematics) for her geometry work.

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 email them to ManorPrimary@sgmail.org.uk FAO Mrs Sweet and we will share them with our school community.

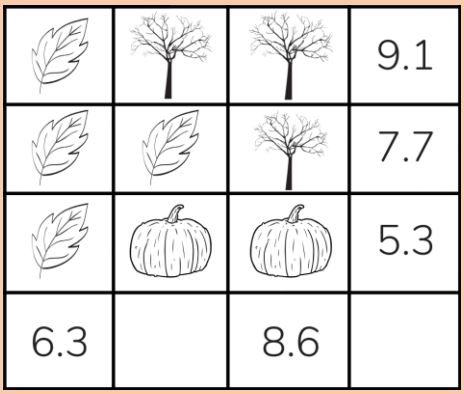
A problem shared …

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

Symmetry in nature

What symmetry can you find in the natural world? Collect some natural objects and look for similarities and differences. How can you sort these thinking about the mathematical properties of them (shape, number of points etc)?

Autumn Logic Puzzle



Can you work out what the different images represent? Can you use this to work out the missing numbers?

(If your child is not yet working with decimals, you can adapt this to make each image represent a whole number)

Enjoyed these?

Take a look at https://nrich.maths.org/primary. The website https://wodb.ca/ has lots of great images for you to discuss with your children which will prompt deep mathematical discussions and reasoning.
https://docs.google.com/spreadsheets/d/1jXSt_CoDzyDFeJimZxnhgwOVsWkTQEsfqouLWNNC6Z4/pub?output=html this site has a collection of 3-act maths tasks which prompt learners to discuss their mathematical thinking and explain their approach to problem solving.

Don't forget, Purple Mash has many maths activities for you to explore too.