Y4 Maths What they need to know...

This term, we will focus on developing both mental and written methods for addition and subtraction. The children must be able use the formal written column methods to solve problems with numbers up to 4 digits. Please see our school calculation policy for more information about this. However, they must also have a number of secure mental strategies in place. Some of these include: knowledge of near doubles (e.g. If I know 60 + 60 = 120, then I also know that 60 + 58 = 118); adding/subtracting 9 or 11 by adding/subtracting 10 and then compensating (e.g. 56 - 9 = 56 - 10 + 1 = 46 + 1 = 47); partitioning numbers mentally into hundreds, tens and ones (245 + 123 = 200 + 100 + 40 + 20 + 5 + 3 = 368); subtraction as the difference between, by starting with the smallest number and counting on in useful chunks (e.g. 283 - 154 = 100 + 6 + 10 + 10 + 3 = 129); subtraction by partitioning the second number mentally (e.g. 276 - 49 = 276 - 40 - 9 = 236 - 9 = 227).

Activities & Games:

★ Make a set of 0—20 digit cards. Turn over 2 cards and add up the digits as quickly as possible. Can you explain to somebody what mental maths strategy you used? For example, did you use your knowledge of number bonds, rounding or partitioning? Now write that number down and turn over another card. Add this number to your current total. For example: 15 + 8 = 23 23 + 8 = 31 Keep turning over cards. How far can you go? To practise subtraction, pick a starting point, for example 100, and each time you turn over a card, take away that amount. Can you go below zero?

★★ Explain to a grown up how to complete these two calculations (4532 + 1289; 7655 - 5467) using counters and a place value chart.

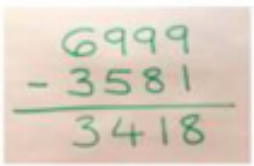
★★★ Chloe is performing a column subtraction with two 4-digit numbers. The larger number has a digit total of 35. The smaller number has a digit total of 2. What could Chloe's subtraction be? How many different options can you find? You could use cards to help you find the numbers.

★★ Here are three different methods children use to solve 7000—3582. Can you explain how each child has reached their answer? Whose method is the most efficient? Use the different methods to solve 4000 – 2831.

Sam



Lucas



Jemima



★ The aim of the game is to get a number as close to 5,000 as possible. Each player rolls a 1-6 die and chooses where to put the number on their grid. Once they have each filled their grid, they add up their totals to see who is the closest.

	?	?	?	?
+	?	?	?	?

★★ Using mental calculation strategies only, can you make each row and column add up to 1200?

897		
		832
	762	

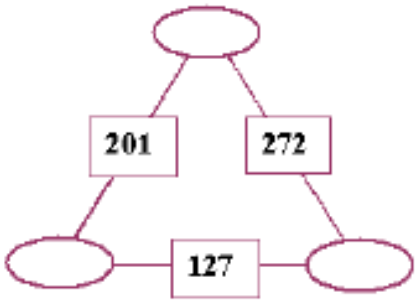
Going deeper...

Twenty divided into six

Katie had a pack of twenty cards numbered from 1-20.
She arranged the cards into six unequal piles. The numbers on the cards in each pile added to the same total. What was the total and how could this be done?
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

Number Juggle

Fill in the missing numbers so that adding each pair of corner numbers gives you the number in the box between them.



Wonderful websites

Arithmetic Mathsbot

Videos (BBC)

Times tables (MathsFrame)

Countdown game (Nrich)

Arithmetic (IXL)

Whilst it can be very tempting to encourage your child to have a go at the more challenging activities, it is far better to work with them at a level they feel confident with. Significant and regular practise of even the most basic skills outlined in this document will lead to a much deeper understanding and greater proficiency, and ultimately a much more pleasant 'homework' experience for you and your child!