

# Y3 - Addition and Subtraction

By the end of this term, the children will need to be secure with the formal written column methods for addition and subtraction, using numbers with up to 3-digits. The school calculation policy (found on the website) explains these processes in more detail. However, time will also be devoted to developing the children's mental calculation strategies, using a variety of resources (such as base 10 and place value counters) to support them. It is important that children recognise when they can do a calculation in their heads, and don't need to work it out with a formal written method. Some of these strategies include: adding to the nearest 10 first, by partitioning the second number e.g.  $56 + 8 = 56 + (4 + 4) = (56 + 4) + 4 = 60 + 4 = 64$ ; 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.  $83 - 54 = 6 + 10 + 10 + 3 = 29$ ); subtraction by partitioning the second number mentally (e.g.  $276 - 49 = 276 - 40 - 9 = 236 - 9 = 227$ ).

## Activities & Games!

**Magic maths**—Choose 2 number cards and create a number sentence by adding them together. You now have 3 numbers and 1 addition number sentence. Using these 3 numbers ONLY can you make a different addition number sentence and 2 subtraction number sentences.

**Subtraction board game**—Design and make a board game involving subtraction sums to play at home. Think about board games that already exist such as Snakes and Ladders, Ludo and pathways games such as monopoly. You could have subtraction problems written onto the board or your game could involve the players picking up cards which have problems to solve on them.

**Make a known facts book or poster**—We are encouraging the children to build up their bank of known maths facts. E.g. most children in Y3 know that  $1+1=2$  and  $2-1=1$  without having to work it out because it is a maths fact that they know! We are working on known facts with numbers up to 20. Make a booklet or a poster of all the addition and subtraction that you KNOW! **Try to learn a new one each week.** Once you have learnt a new fact add it to your booklet or poster.

## My Maths

Use our school log in (Username: **coleridge1**, Password: **success74**), and then your own log in details to access activities related to our current topic on the MyMaths website. You can also have a look to see if there are some other fun games you would like to play.

# Going deeper...

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Roll a 1-6 dice and each time record the digit in one of the place holders.

Aims:

1. Make the answer the smallest it could be.
2. Make the answer the largest it could be.
3. Make it so that you need to borrow to solve the ones column.
4. Make it so that you need to borrow to solve the tens column.

Repeat to find different answers.

## Wonderful websites

<http://www.topmarks.co.uk/number-facts/number-fact-families>

[http://www.strike.lancsngfl.ac.uk/download/file/Willow%20Class/Maths/ITPs/Hit\\_the\\_button\\_v10.swf](http://www.strike.lancsngfl.ac.uk/download/file/Willow%20Class/Maths/ITPs/Hit_the_button_v10.swf)

<http://www.amblesideprimary.com/ambleweb/mentalmaths/numberbond.html>

<http://resources.oswego.org/games/Ghostbusters3/ghostsub3.html>

[http://www.learnalberta.ca/content/me3us/flash/lessonLauncher.html?lesson=lessons/07/m3\\_07\\_00\\_x.swf](http://www.learnalberta.ca/content/me3us/flash/lessonLauncher.html?lesson=lessons/07/m3_07_00_x.swf) (this is game is hard and requires the children to be able to do the expanded column method for subtraction with borrowing)

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 practice 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!