Numeracy Learning at Home
Beyond 1000

Information for Parents

On the back of this sheet, there is a grid of activities which you can do with your child to help them practise number skills. Doing these a little and often will build their understanding of number concepts, complement their work in school and prepare them well for future learning.

Background to this developmental stage

Firm foundations (including good number knowledge and the ability to add, subtract, multiply and divide with confidence) are very important to success within all areas of maths . In school, by this stage, your child will be carrying out some more complex maths and will be using written methods like this:

4233	4345	234	_____
+5429	-3223	x 4	3)345
____	_____	___	

The best way for you to help is by continuing to help your child develop firm conceptual understanding and mental methods so we strongly recommend **parents do not teach these methods at home** but instead work on the ideas suggested in the grid which will encourage the development of mental strategies and boost strong conceptual understanding. If your child chooses to use a written method like the ones above, that is ok – don't tell them not to but encourage them to talk through their working with you. By this stage, your child should have moved beyond counting by ones when doing a calculation and they should count by 2s, 5s, 10s etc. However, it is often very helpful to use fingers to keep track of how many 2s, 5s, 10s etc we have counted. Some of the ideas in the grid are repeated from earlier levels and focus on numbers below 100 and 1000 – it is really important for children to keep working on basic number facts so that they fully embed them in their memory – this is called 'over learning'. Please don't think that the ideas in these sheet represent all the maths your child is learning in school. We are asking you to work on these basics with them to support the more complex work they are now doing in school.

Tips and Hints:

These tasks should be fun and enjoyable for you and your child.

- 10 minutes a day is enough.
- Don't carry on when your child gets bored.
- Don't get cross if your child can't do it – try a different task or smaller numbers.
- Don't feel worried if your child is stuck, just try something different.
- Don't worry if it seems easy - lots of practice is very important and you will find there are some numbers your child finds harder and needs more practice with.
- Involve older and younger siblings.
- Make sure your child doesn't think it is babyish to use fingers or objects to help with counting or working out. This is a good strategy and it promotes solid understanding.
- Use games on tablets or computer with care – some are very good but in others your child may appear to be doing well but is actually using a different clue to click the right answer and isn't developing number knowledge. We would always recommend your child does not use a screen for at least one hour before bedtime as the blue light can suppress the body's ability to produce melatonin and so prevent a good night's sleep.

Play board games involving bigger numbers e.g. Monopoly or Top Trumps or which involving adding or subtracting e.g. Scrabble.	Help your child see what 1000 looks like. Make a 1000 collection of something. This is a good opportunity to help your child see that 10 lots of 10 makes 100 and 10 lots of 100 makes 1000. For example, if you collect ten stones ten times you have 100. If you do that 10 times you will have 1000. Count your collection in 10s to make 100 piles and then in 100s up to 1000. If you don't have as many as 1000, count how many you do have, this is just as valuable – you might have 4 lots of 100, 3 lots of 10 and 2 more - 432. You could collect stones, shells, leaves or sticks over a period of time when you are out and about – don't worry that this will take many weeks to have 1000 - this will help your child see just how big 1000 is. Alternatively you could use something little you have in the house e.g. grains of rice. **Can you keep collecting beyond 1000 to count bigger and bigger numbers?** It might not be practical - but if you can keep going and collect more and more objects, so much the better.	Help your child learn their tables – chant them in the car, test them on sums, play internet games. If your child can recall tables facts, this will hugely help them in later life.	Help your child learn tables in reverse to support division. E.g. '8 times what makes 72?' or 'what is 72 divided by 9?'
Look out for bigger numbers in the environment and get your child to read them/discuss what the numbers mean. E.g. a newspaper headline saying a prize will be £48 000. Or look at estate agents listings – what do the houses cost? Or write some big numbers and read them together.		Play pairs – make cards with the numbers 0-100 on them. Spread them out on the table. Each player takes turns to turn two over – if they add to 100 they can keep them. The player with the most cards at the end wins. You can make the games shorter by using fewer cards but makes sure the cards you use are pairs to 100.	Ask lots of questions and sums e.g.: There is £2339 in the bank, how much more would make £2362? There are 2435 packets of crisps in the shop, how many left after we all buy 3packets each? There are 362 sweets, how many can you and your brother have each? (what about if there are 363?) What is 2323+3447, 2358-323, 534x4, 955 divided by 5, how many 2s in 348?….. Let your child work these out mentally or let them write their working down. Don't worry about whether they are doing it the *'right'* way. Letting your child experiment with their own methods is allowing them to explore number concepts and this will help them develop strong understanding. If they are stuck, encourage them to **partition** the number into hundreds, tens and ones e.g. 223 + 247 is 2 hundreds + 2 hundreds = 4 hundreds or 400, 2 tens + 4 tens = 6 tens or 60 and 3 ones + 7 ones = 10 so the whole answer is 470 or 223 + 200 = 423, 423 + 40 = 463, 463 + 7 = 470. There is no one correct way, let them experiment. They might choose to use a written vertical method, this is fine but encourage them to talk through their thinking.
Use £1 coins, ten pences and one pences to lay out amounts to £10 (1000 pennies) or beyond if you can. Focus on the total amount (in pounds and pence) and on how many pennies there are.		Give them a number and ask them to double it. Give them a number and ask them to halve it. Use partition or a written method to help. See right for an explanation of 'partition'	
Keep helping your child recall number bonds to 100 (two numbers which add up to 100): 99+1, 34+66 and so on. You can draw your child's attention to the rule that the tens numbers add to 9 tens and the ones numbers add to 10 making 10 tens (100) in total.		Do lots of counting – count up and down in ones, twos, fives, tens and threes. Don't always start at 1 e.g. start at 5092 and count to 5592 in 10s or start at 9846 and count to 10000 in 2s or start at 9999 and count down to 8599 in 10s. This is a great activity for in the car.	