## MATHS

## Number work

## Aim 1: To understand number placement with tens and units

You may already have covered this. If not, here are the notes from the 5-6 pages:
Your child already knows that all the numbers between 10 and 99 have two parts to them, or two 'digits'. Write a double digit number in two columns, and label the columns U for units and T for tens. Show what happens when the units column reaches 9: we cannot fit any more in so we need to write the ' 10 ' over both columns. Explain that ' 10 ' means one ten but no units. What if we add one to the units column - what do we get? '11'. Carry on showing the numbers up to 20 until your child grasps what is happening (i.e. he is seeing the sequence of numbers 10-20 appear).

It helps to show this operation with objects too so that the child really grasps it. Drawing an abacus on paper for each number also helps. You can show that each line can only reach up to nine, after that, you need to move to the next line.
This concept of tens and units is really fundamental to later learning so it needs to be thoroughly understood. One easy way to check if your child really 'gets it' is to give two numbers, making sure that the units on the lower number are higher than the units on the larger number: e.g. 32 and 29, 41 and 38, 17 and 23. Ask which is bigger. If your child is still simply looking for the biggest digit and not distinguishing tens and units, he's likely to say 29 is bigger than 32 .

Don't despair if he does this - it can take a while to grasp this concept but he'll get there in the end. If he is stuck, try looking online for some games or different ways of explaining the concept.

## Aim 2: To understand number placement to 3 figs (hundreds, tens and units)

This is the next step up from explaining tens and units and you can deal with it in the same way (i.e. once we get to nine lots of ten - $90-$ we cannot fit any more in the tens column and the number spills over to the next column to give a three digit figure - 100).

To reinforce this, you can write four big, clear zeros on a piece of card, each in a different colour to represent 1000's, 100's, 10's and 1's. Make four sets of digit cards numbered 1-9, in corresponding colours (you'll be covering 1,000 numbers next so it makes sense to include them on the card even though you don't need them at this point).

Now, starting with a single digit, say a number to your child, e.g. 5, and show him how to place the matching number 5 on the correct colour (so, if your units are red, he'd place the red number 5 over the red 0 ). Then say a two digit number, say 25 , and show him how to match the numbers again. Finally, give a three digit number, such as 256 , and have him place all three coloured numbers correctly. Discuss what is happening to make sure he understands it. If not, revise the basic concept of units, tens and hundreds.
When he has grasped the idea, you can say a number such as 97 or 123 and ask him to show it on the card. Conversely, you can place digits on the large card and have him read the resulting number to you correctly.

Use an abacus, or draw your own abacus on paper, and use it as you did with the cards (you call out a number and he 'draws' it correctly; you write a number and he reads it correctly)

Children love dealing with really big numbers. Top Trumps cards are very good for learning place value. You could also make your own simple version of the game using anything your child is interested in: highest number always wins.

## Aim 2: To understand number placement to 4 figs (thousands, hundreds, tens and units)

Repeat the exercise above but with four digit numbers.

## Aim 3 To know number bonds up to 20

Use objects to show which sets of numbers make 20.
Repeat the card game and object box game from Maths age 5-6 in order to re-inforce the bonds.
Aim to be able to call out a number up to twenty and have him give you the matching number which would make 20. snappymaths and primary worksheets provide material for extra practice.

## Aim 4: To understand doubling and halving

Use objects to show doubling as 'two times as much' and to show that halving is the inverse of this.

## Aim 5: To understand odd and even

If you have taught doubling and halving, you can extend this to show that some numbers can be halved to give two equal groups. Using objects, make groups of even numbers and have your child separate them into two equal groups. Have him write down the original number and the halved number (so, 8 and 4,10 and 5 etc.). Now have him make a list of all the numbers of the original groups. What does he notice? They all end in $0,2,4,6$ or 8 .

Now give him a new set of objects, this time starting with an odd number. Ask him to try and divide these into two equal groups - he cannot. If he writes the quantities of the original groups he should find that they all end in $1,3,5,7$ or 9 .

Explain that we call the first group (those numbers which can be divided equally into two) 'even numbers', and the second group (those which cannot be decided equally into two groups) 'odd numbers'.

## Aim 6: To understand that subtraction is inverse of addition.

If your child hasn't spotted this for himself, make it clear by using objects. When he has grasped the concept clearly, give him some simple subtractions and have him show the inverse addition. These do not have to be difficult sums (you can stick with things he is knows or is working on e.g. number bonds to 20).

## Shape and space

## Aim 1: To measure lengths (cm, m)

A fun way to practice measuring is to make a chart with various measurements on and find things around the house which fit into each category. Writing down an estimate first makes it more of as challenge to see if you are right.

I use a metre rule which also has feet and inches marked on. These are available from haberdashery departments rather than classroom maths material suppliers.

## Aim 2: To measure capacity ( $\mathbf{l}, \mathrm{ml}$ )

This can, in all honesty, be covered by baking with you child.

## Time

## Aim: To recognise 'o'clock' and 'half past ' times

Children pick this up quite easily without having to understand about the division of the clock into five minute segments etc., but it gives them confidence that they can at least partly tell the time. If your child finds this easy, have a go at teaching the whole thing (this would be covered in a standard Maths text book for age 7-8). It doesn't matter if he doesn't get it yet as he'll be studying it later anyway.

