KS1-Supporting your child with developing their fluency with number facts and counting.

There are lots of activities which you can do at home which will support your child's learning in Maths and develop their fluency in number facts and counting. Children learn to rote count higher than they can recognise or write numbers so using numbers alongside counting activities will help develop their number recognition and in turn their writing of numbers. Please read this information in conjunction with our **Maths Calculation Policy** which explains the different strategies we use in school to teach calculation and the progression of these across the school.

What are number facts and why learn them?

In the 2013 National curriculum there is a much greater expectation that children develop fluency with number which includes "being taught to recall and use addition and subtraction facts to 20 fluently". If children are able to recall number facts quickly when they are needed it stops them having to constantly stop and count one by one. It also helps develop and improve their mental maths skills and enables them to tackle working with larger numbers more readily and with more confidence. We continually practise these skills in school but the more repetition children have the more embedded these number facts become. Children need to be confident in recalling these facts for numbers to 10 before moving to 20 and this will be child, not age or year group, dependent.

What are number facts?

Number facts include for example:

- Number bonds or pairs of numbers that add to 10 then moving to pairs that make 20. Children also need to understand the concept of commutativity ie. that for addition if they know 7+3 = 10 it also means that they know 3 +7 =10 but this is not true for subtraction.
- pairs of numbers that add to other numbers up to 10 eg. 0+5, 1+4, 2+3 all add to 5, then moving to numbers up to 20
- subtraction facts for numbers up to 10 eg. 8-2= 6, 8-3=4, 6-4=2 then moving to numbers to 20 eg. 19-3=16.
- Doubles of numbers to a total of 10 then to 20
- Halves of even numbers to 10 and then 20

There are many ways these number facts can be practised and there are ideas in the table below with links to websites.

Number facts-addition and subtraction

As a guide children would tend to work on number facts to 10 in year 1 moving to 20 in year 2.

There are many websites which have different games children can play and some are set up so children can challenge themselves to improve their scores. This list is by no means exhaustive so there may be others just as suitable. Some of these are used in school so children may be familiar with some of them.

https://garyhall.org.uk/primary-maths-resources.php which has simple Flash resources to support the teaching and learning of Maths. These are produced by the Coventry Primary Numeracy Team for use by teachers and pupils and are known as Gordons. They are grouped under the different objectives for year 1 and Year 2.

https://www.topmarks.co.uk/maths-games/hit-the-button

http://www.ictgames.com/numberFactsBingo/index.html

http://www.ictgames.com/numberFacts.htm

https://www.teachwire.net/news/8-of-the-best-number-bonds-to-10-games-to-play-online

http://fun2think.com/maths/number-bond-games/

https://bso.bradford.gov.uk/userfiles/file/LDteam/Games%20to%20play%20with%20a%20pack%20of%20playing%20cards.pdf

Quick fire quiz questions

Verbally asking quick fire questions using different vocabulary whenever you have a few minutes of spare time such as in the car will improve their number facts recall as well as also developing their listening and vocabulary skills!

Ask questions such as:

What is 5 **add** 5? What is 2 **more than** 7? If I add 3 to 4 what is the answer? What number do you need to add to 4 to make 10? What is the **total** if I add 12 and 3? What is 7 **take away** 3? If I **subtract** 2 from 8 what is the answer? What is 2 **less than** 6?

These questions can also be asked as word problems so children see the application of number in real life:

If I give you 2 apples than another 3 how many will you have? If you have 10p and 2p how much money do you have? If you have 8 sweets and I eat 2 how many will you have left?

Dominoes/playing cards/dice

Use dominoes to play games such as finding all the dominoes that have dots that add to a certain number.

Choosing 2 random cards and quickly adding the two numbers together or who can find the most pairs of cards that add to a chosen total. Choosing a random card and quickly doubling the number. Can it be halved?

Rolling dice-who can say the total the quickest or subtract the 2 numbers the quickest-use 0-6 dice, moving to 0-9 dice and then maybe spinners with numbers to 10.

Doubles and halves

Do this practically: I need to divide these 8 sweets in half-if I put them into 2 groups how many will be in each? If I give you half these toys how many will you get?

https://www.topmarks.co.uk/maths-games/hit-the-button

http://fun2think.com/maths/number-bond-games/

Using dice:

Throw 1 dice who is the quickest to double the number?

Developing fluency in counting

Practising counting will develop your child's fluency so they do not have to stop and count on or back in ones. Pattern recognition can also be important in learning to count.

The table below shows what children are taught in year 1 and 2 with regard to counting. Please bear in mind that children develop their skills at different rates.

Year 1

Count to and across 100, forwards and backwards, not always starting from 0 or one but from any given number

Initially children will know to count forwards from 0 to 20 and backwards to 0 from 20 but as they move through year 1 they need to work on recognising and writing numbers as well counting up and back from any given start number. For example, starting at 12 and continuing counting up in ones as far as they can or counting back to 0.

https://garyhall.org.uk/maths-objectives/1/count-to-and-across-100-forwards-and-backwards-beginning-with-0-or-1-or-from-any-given-number

http://www.ictgames.com/countingwithstick.html

http://www.ictgames.com/caterpillar_slider.html (only selects 5 numbers so for counting in ones need to select eg. 31-35)

http://www.ictgames.com/whackAMole/index.html

Practise counting up and back from different numbers. Take it in turns to say the numbers.

When out and about use numbers you see around as a starting point to start counting up or backwards.

Given a number identify one more or less

Say a number and ask your child what is one more or one less than that number. They can quiz you and tell you if you are correct or not when you give a wrong answer!

https://garyhall.org.uk/maths-objectives/3/given-a-number-identify-1-more-and-1-less

count in steps of 2, 5 and 10 from 0

https://garyhall.org.uk/maths-objectives/2/count-read-and-write-numbers-to-100-in-numerals-count-in-multiples-of-2s-5s-and-10s

Practise counting up from 0.

Practise counting objects so children can see maths being used in real life-eg. count numbers of socks in pairs, count the number of shoes in 2's/pairs because they come in pairs. If you see chairs in rows of 5 or 10 ask your child to work out how many people can sit down-it demonstrates they can use counting up in 5 or 10 rather than counting up in ones.

Count how much money when have coins-2p, 5p 10p. Children need to understand the value of coins ie. 2p=same as two 1p coins and that they are counting the amount of money not the number of coins. Start with 1p coins and counting them and then swapping them for 2p, 5p or 10p. Ask questions such as how much money do we have? How many coins do we have?

Year 2-please also see the information listed under Year 1

count in steps of 2,3 and 5 from 0 forward and backward

See year 1 ideas but extend to counting backwards. When counting real objects count up to find the total number then take objects away and count back.

Learn the 2,3,5 and 10 times tables:

1 X 2 = 2

2X 2 = 4

3X 2 = 6

Children will see patterns in how the numbers increase and decrease. They will also start to identify related division facts ie. if you have 6 this can be split into 3 groups of 2.

count in steps of 10 from any number forwards and backwards eg. 11,21,31,41 etc or 87 77 67 57

This helps with adding and subtracting multiples of 10 and later the addition and subtraction of two 2 digit numbers.

http://www.ictgames.com/flipCounter/index.html

Quick fire halves and doubles:

https://www.topmarks.co.uk/maths-games/hit-the-button

http://fun2think.com/maths/number-bond-games/