

Fleet Infant School
Mental Maths
Toolkit


November 2024
Maths Curriculum Meeting for Parents





The National Curriculum for mathematics

Aims to ensure that all pupils:

- Become **fluent** in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
 - **Reason mathematically** by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification of proof using mathematical language.
 - Can **solve problems** by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.
- 

The emphasis in KS1 is on mental arithmetic

The Mental Maths Toolkits provide opportunities for practising these skills at home

**DOUBLES
&
HALVES**

**BONDS FROM
0-10, 20 AND
100**

**ADDING
&
SUBTRACTING**

**USING DIFFERENT
VOCABULARY**

**COUNTING FORWARDS &
BACKWARDS IN MULTIPLES OF
2, 5, 10**

What is a maths toolkit?

Fleet Infant School Mental Maths Toolkit 1



Parents

There are lots of mental skills and strategies that we need to master in order to become quicker and more accurate at number work and calculation. These skills will help your child with maths in everyday life – for example when they need to work out how much to pay for a few things when shopping, how much discount or change they should get, how to work out how far a journey is or how long it will take.

It's fine to use fingers – and other resources – to help their thinking when they are learning about things in maths. But there are some things that it is really useful to just know – and to be able to recall instantly. The more of these things they have in their 'toolkit', the easier and quicker it will be to solve a mathematical problem or work out an answer or solution.

Children

All of the skills and strategies in this booklet need to be really understood (your adult and teacher will help you with this), you need to practise them regularly until you are very quick and know them instantly – without having to work it out or use your fingers. When you have mastered all the targets bring your booklet to school and then your teacher can see if you are ready for the next 'toolkit'.



Mental Maths Toolkit 1

+	Target	Child	Parent
	I can count up to ten objects accurately		
	I can order numbers to ten		
	I can count out loud to ten and beyond		
	I can quickly say the number that is one more than any number up to 10		
	I can quickly say the number that is one less than any number up to 10		
	I know my number pairs with a total of ten (quick recall – no fingers)		
	I know number pairs for other numbers up to 10 (e.g. pairs to make 5, 4, 7) (quick recall)		
	I know doubles of numbers to 10 (quick recall)		
	I can count forwards and backwards to and from 20		
	I can count up to 20 objects accurately		
	I know the numbers from 11 to 20, including the "teen numbers" and can explain what each digit represents		
	In my head, I can quickly add or subtract any pair of single digit numbers (e.g. $4 + 5$, $8 - 3$)		
	I can count forwards and backwards in ones from any number up to 50		
	I can count in tens to 50 and back		
	I can say what each digit represents in any two-digit number to 50.		
	I can order numbers up to 50		
	I can count forwards and backwards in 5's to 50		

Once you have mastered one of the targets tick the box next to it. Then get your adult to test you and they can tick and date it too, to show they agree.



Mental maths toolkit 1

SCHOOL

- Each half term an adult works with your child on a one-to-one basis, to go through the next few items on their toolkit.
- They highlight the targets that your child is confident in and tells them what their next target will be.

HOME

- These targets generally show progression, working with numbers to 10 then 20 etc. However, your child may find certain targets easier than others, so it is fine to leave a target if they are finding it too challenging. You can focus on a different one, remembering that going back over previous targets is great reinforcement.

Mental Maths Toolkit 1

Target	Child	Parent
I can count up to ten objects accurately		
I can order numbers to ten		
I can count out loud to ten and beyond		
I can quickly say the number that is one more than any number up to 10		
I can quickly say the number that is one less than any number up to 10		
I know my number pairs with a total of ten (quick recall – no fingers)		
I know number pairs for other numbers up to 10 (e.g. pairs to make 5, 4, 7) (quick recall)		
I know doubles of numbers to 10 (quick recall)		
I can count forwards and backwards to and from 20		
I can count up to 20 objects accurately		
I know the numbers from 11 to 20, including the “teen numbers” and can explain what each digit represents		
In my head, I can quickly add or subtract any pair of single digit numbers (e.g. $4 + 5$, $8 - 3$)		
I can count forwards and backwards in ones from any number up to 50		
I can count in tens to 50 and back		
I can say what each digit represents in any two-digit number to 50.		
I can order numbers up to 50		
I can count forwards and backwards in 5's to 50		

Eventually the aim is for your child to do the calculations in their head. Helping your child learn these at home will benefit them greatly with their mathematical fluency.

The toolkit is important

The items on the toolkit relate directly to the areas of the curriculum that we teach, and the end of Key Stage expectations

Working **towards** the expected standard

- Count in 2s, 5s and 10s from 0 and use counting strategies to solve problems.

Working **at** the expected standard

- Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables to solve simple problems.

Working **at greater depth**

- Use multiplication facts to make deductions outside known multiplication facts
- Determine remainders given known facts

Toolkit 1

I know my number pairs with a total of ten (quick recall – no fingers)		
I know number pairs for other numbers up to 10 (e.g. pairs to make 5, 4, 7) (quick recall)		

Toolkit 2

I know all number pairs that total 10 (quick recall – no fingers!)		
I can quickly add together in my head any two numbers up to 10		
I know all number pairs that total 20 (quick recall)		
I can quickly add together in my head multiples of ten (e.g. $20 + 30$, $70 + 20$)		
I can quickly add together in my head any two numbers up to 20		



If you know $8+2 = 10$

**What other number
facts do you know?**





Building on what they already know to apply it to problems:

$$8+2 = 10$$

$$2+8 = 10$$

$$10-8 = 2$$

$$10-2 = 8$$

$$18+2 = 20$$

$$12+8 = 20$$

$$20-8 = 2$$

$$20-12 = 8$$

$$80 + 20 = 100$$

$$20+80 = 100$$

$$100-80 = 20$$

$$100-20 = 80$$


addition

twinkl

- add
- more
- plus
- make
- sum
- total
- altogether



subtraction

twinkl

- subtract
- minus
- leave
- less
- take away
- difference between



multiplication

twinkl

- lots of
- times
- multiply
- groups of
- product
- multiplied by
- multiple of
- repeated addition
- array



division

twinkl

- divide
- divided by
- divided into
- share
- share equally
- equal groups of





2 more than 9

5 + 8 =

Total of 25 and 41

74 plus 27

26 and 32 make

The sum of 3 and 2 is

10 and 14 altogether is



Helpful links

Number bonds to 10

<https://ictgames.com/saveTheWhale/>



http://www.ictgames.com/sharkNumbers/sharkNumbers_v5.html

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



 EducationCity

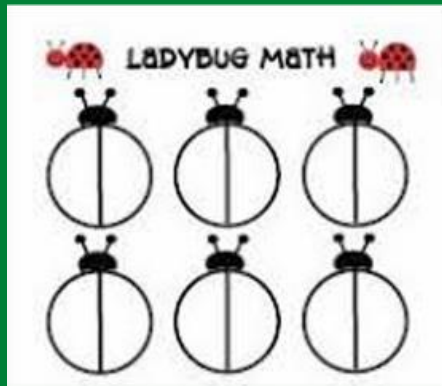
<https://go.educationcity.com/>

Select activities by year group

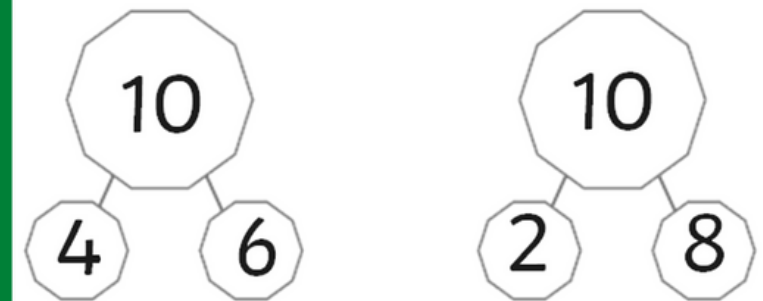
<https://www.topmarks.co.uk/>

Resources & questions

Make 5 in 6 ways



1.	20	
		8
2.	20	
	15	
6.	20	
		6
7.	20	
	11	



The toolkits 1-3

Mental Maths Toolkit 1

Target	Child	Parent
I can count up to ten objects accurately		
I can order numbers to ten		
I can count out loud to ten and beyond		
I can quickly say the number that is one more than any number up to 10		
I can quickly say the number that is one less than any number up to 10		
I know my number pairs with a total of ten (quick recall – no fingers)		
I know number pairs for other numbers up to 10 (e.g. pairs to make 5, 4, 7) (quick recall)		
I know doubles of numbers to 10 (quick recall)		
I can count forwards and backwards to and from 20		
I can count up to 20 objects accurately		
I know the numbers from 11 to 20, including the “teen numbers” and can explain what each digit represents		
In my head, I can quickly add or subtract any pair of single digit numbers (e.g. $4 + 5$, $8 - 3$)		
I can count forwards and backwards in ones from any number up to 50		
I can count in tens to 50 and back		
I can say what each digit represents in any two-digit number to 50.		
I can order numbers up to 50		
I can count forwards and backwards in 5's to 50		

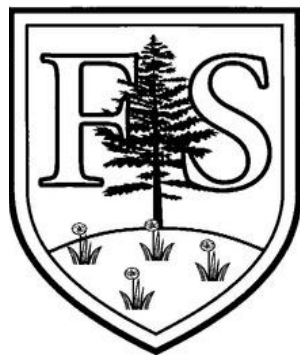
Mental Maths Toolkit 2

Target	Child	Parent
I can recognise all numbers to 100		
I can count forwards and backwards in ones to 100		
I can order number to 100 and explain why they are in that order		
I can count in tens to 100 and back		
I can explain what multiples of ten are		
I can quickly say the number that is one more or one less than any number		
I know all number pairs that total 10 (quick recall – no fingers!)		
I can quickly add together in my head any two numbers up to 10		
I know all number pairs that total 20 (quick recall)		
I can quickly add together in my head multiples of ten (e.g. $20 + 30$, $70 + 20$)		
I can quickly add together in my head any two numbers up to 20		
I can say the number that is ten more or ten less than any number up to 100 (quick recall)		
I can quickly add a multiple of ten to any number up to 100		
I can partition numbers into tens and ones and explain the value of each digit		
I can count forwards and backwards in 2's to 100 (and beyond)		
I can count forwards and backwards in 10's to 100 (and beyond)		
I can count forwards and backwards in 5's to 100 (and beyond)		
I know the 2 times table (quick recall, random order)		
I know the 5 times table (quick recall, random order)		
I know the 10 times table (quick recall, random order)		
In my head, I can quickly add or subtract any one-digit number to or from a multiple of ten.		
In my head, I can quickly add or subtract a one-digit number from any two-digit number		

Mental Maths Toolkit 3

Target	Child	Parent
I can order numbers to 1000 and explain how.		
I can count on and back from any number up to 1000.		
I can count forwards and backwards in 100's from any number to 1000		
In my head, I can add together one-digit and two-digit numbers.		
I know my 3 times table (quick recall – random order)		
I know my 4 times table (quick recall – random order)		
I know my 6 times table (quick recall – random order)		
I can quickly work out doubles of numbers up to 50 in my head.		
I can quickly work out half of any even number to 100 in my head		
I can explain what each digit in a 4-digit number represents		
I can round numbers to the nearest 10 or 100		
I know my 7 times table (quick recall – random order)		
I know my 8 times table (quick recall – random order)		
9 times table (quick recall – random order)		

Thank You



website
www.fleet.hants.sch.uk



email
info@fleet.hants.sch.uk

