



Glebe Primary



School

Maths Booklet - Year 2

Guide to helping at home

The aim of this booklet is to aid you in supporting your children at home. The methods for the main areas of the curriculum are shown.

These methods are introduced throughout the teaching year so most pupils should be familiar with all methods by the **end** of the year. In year 2, while the activities are still sometimes practical and may involve your child using cubes, beads, diagrams and other equipment to problem solve, as they progress through the year they will need to become more confident using written methods.

For each area of the curriculum there are various approaches. This is because children have individual learning styles. By introducing a variety of approaches, it will allow them to select the method that suits them best.

Each sheet also shows typical maths specific vocabulary that children will be acquiring and using at this stage.

Helpful Websites

<http://www.primarygames.co.uk/pg2/splat/splatsq100.html>

(hundred square splat)

<http://resources.woodlands-junior.kent.sch.uk/maths/>

(all maths computer games)

<http://www.maths-games.org/>

(all maths games)

<http://www.topmarks.co.uk/maths-games/5-7-years/counting>

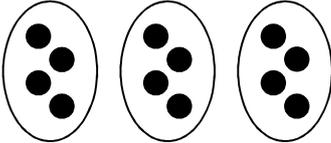
(all maths computer games)



Division

With and without remainders - sharing using practical apparatus

Share 12 sweets between 3 children



Each child gets 4 sweets

Share 14 cubes between 4 children



Each person gets 3 cubes and there are 2 left over.

$$14 \div 4 = 3 \text{ remainder } 2$$

Division as the opposite (inverse of) multiplication

$$20 \div 5$$



How many 5's make 20?

Count up in 5's on their fingers to 20, then count the number of fingers - 5, 10, 15, 20

There are 4 lots of 5 in 20 so $20 \div 5$ is 4

Vocabulary:

share, share equally, one each, two each, three each... group in twos, threes... tens, equal groups of, divide, division, divided by, divided into, left over, remainder, halve, arrays, jumps, repeated subtraction.

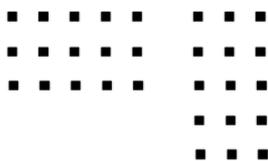


Multiplication

In year 2 your child will develop and consolidate their understanding of the x2, x5 and x10 multiplication tables. They may also be introduced to the multiplication facts for the x3 and x4 tables.

Multiplication Using Arrays (pictures)

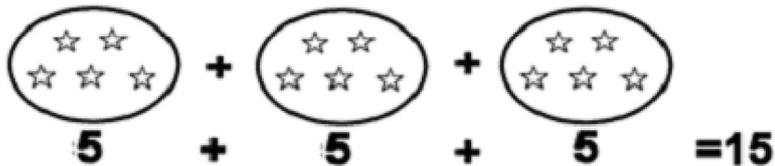
$$3 \times 5 \quad 5 \times 3$$



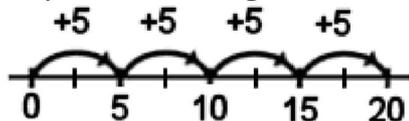
3 rows of 5 or
5 rows of 3

Multiplication as repeated addition

$$3 \times 5$$



Multiplication Using Number lines



$$4 \times 5$$

4 Jumps of 5

$$4 \times 5 = 20$$

Vocabulary:

lots of, groups of, times, multiply, twice, three times... ten times, times as (big, long, wide... and so on), repeated addition, array, row, column, double.



Subtraction

Subtraction as take away

1-digit number from a 2-digit number

Using a hundred square, find the 2-digit number and count backwards.

Progressing to mental calculation. For example: $79 - 3$ becomes 'put seventy nine in my head and count back 3 on my fingers... 78, 77, 76

Subtracting multiples of 10

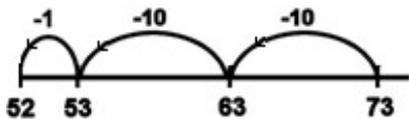
Using a hundred square (initially-hundred squares will not be allowed in the test) your child will learn how to 'jump-back' from any number in jumps of 10.

Subtracting 2-digits from 2-digits

Partitioning $73 - 21$

This is introduced practically using cubes and tens blocks before the children move on to using number lines and more abstract written methods.

Number line $73 - 21$



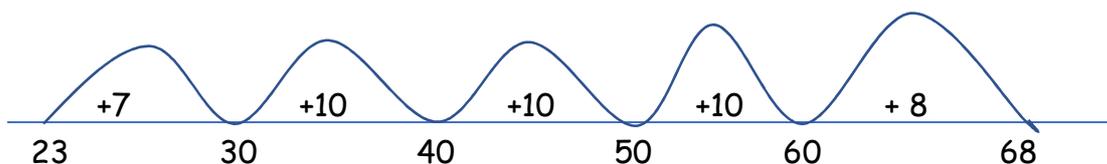
Start at 73 - Jump back in two lots of 10. Then jump back in 'ones' once.

$$73 - 21 = 52$$

$$70 - 20 = 50 \text{ (Subtract the tens)}$$

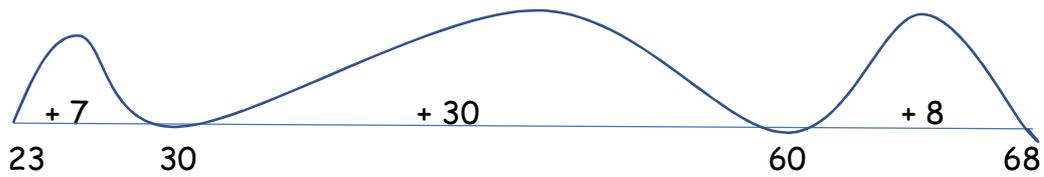
$$3 - 1 = 2 \text{ (then the units)}$$

Finding the difference $68 - 23$ (small jumps)



Start at the smaller number (23) then jump to the nearest tens number. Continue to jump in 10s. To calculate the total add the tens numbers first, before the unit numbers.

Finding the difference $68 - 23$ (larger jumps)



Vocabulary:

subtract, take (away), minus, leave, how many are left/left over? how many have gone? one less, two less, ten less..., how many fewer is... than...?

Difference between, how much less is...? equals sign, is the same as.



Addition Helpful

Websites

Adding 1-digit to 2-digit numbers

<http://www.primarygames.co.uk/pg2/splat/splatsq100.html>

Your child will be encouraged to do this type of calculation 'in their head'. For (hundred square splat)

example, $7 + 82$, becomes 'put 82 in my head and count on 7 using my fingers

- 83, 84, 85, 86, 87, 88, 89, 90. It is important for efficiency that the

<http://resources.woodlands-junior.kent.sch.uk/maths/>

biggest is always put 'into the head'.

(all maths computer games)

Using a 100 square

<http://www.maths-games.org/>

Using a hundred square your child will learn how to 'jump-on' from any number

(all maths games) in jumps of 10.

<http://www.topmarks.co.uk/maths>

Adding 2-digits to 2-digits

(all maths computer games)

Collect the 'tens' together

$$70 + 20 = 90$$

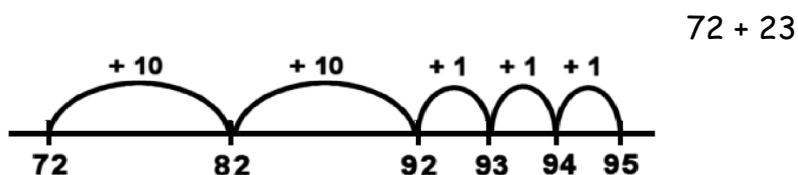
Then collect the 'units' together

$$2 + 3 = 5$$

Find the total $90 + 5 = 95$

-To begin with this is done practically using blocks of 10's and units; when your child is ready they will be shown how to record their calculations. Your child will also have many opportunities to practice this skill verbally.

Using number line for TU + TU



Start at 72 - Jump forward 2 lots of 10 then jump forward in 'ones' three times (23=20+3).

Partitioning

$$\begin{array}{c} 56 + 22 \\ \swarrow \quad \searrow \quad \swarrow \quad \searrow \\ 50 \quad 6 \quad 20 \quad 2 \\ 6+2=8 \\ 50+20=70 \\ 70+8=78 \end{array}$$

When it is appropriate your child will be introduced to using these methods for the addition of 3-digit numbers to 2-digit or 3-digit numbers and will be introduced to the terms hundreds, tens and units (HTU).

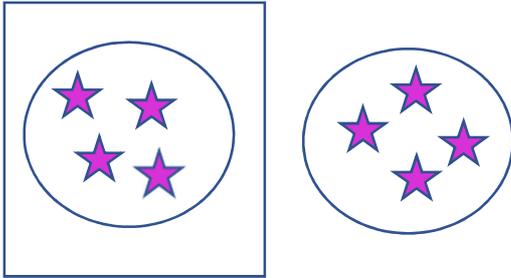
Vocabulary:

add, addition, more, plus, make, sum, total, altogether, score, double, near double, one more, two more... ten more... one hundred more, how many more to make...? how many more is... than...? how much more is...?

Fractions

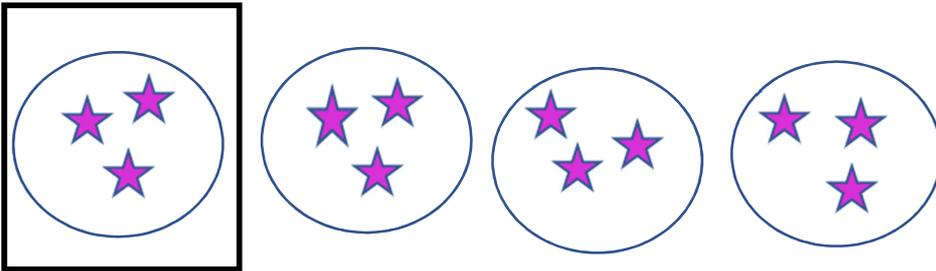
$1/2$ – This will be related to dividing by 2.

$1/2$ of 8 =

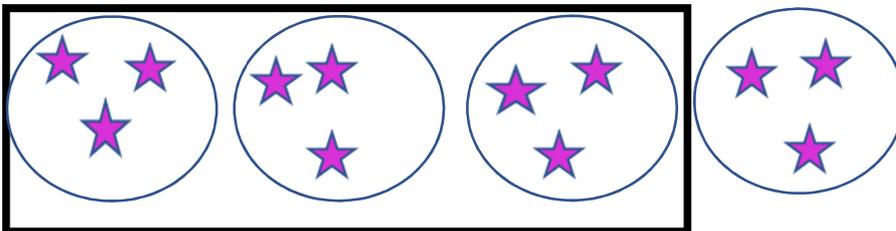


$1/4$ - to work this out mentally children half the initial number, then half it again. Practise folding a paper in half and then halving again to understand the concept.

$1/4$ of 12 =



$3/4$ of 12



Vocabulary

half, quarter, thirds, equal, equivalent