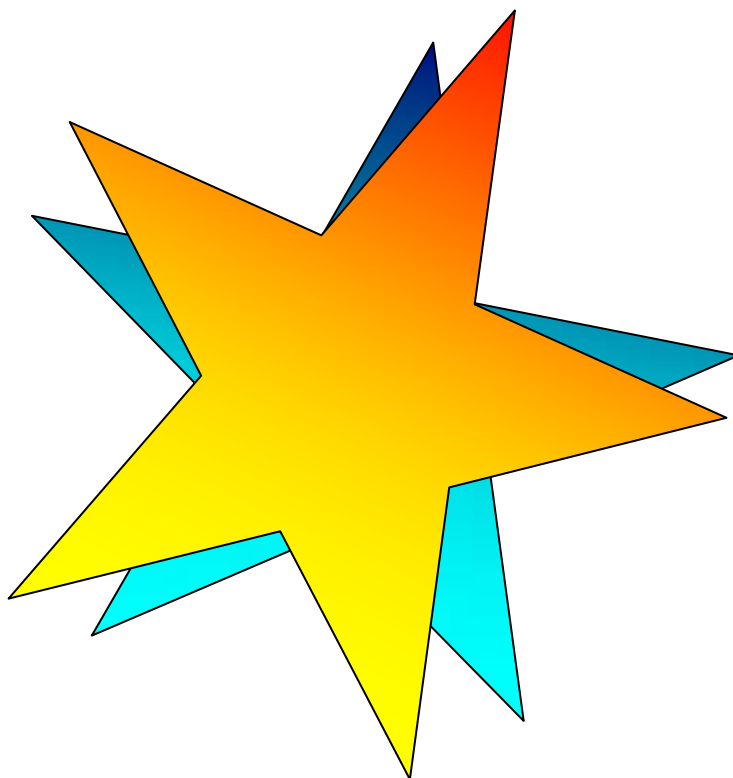
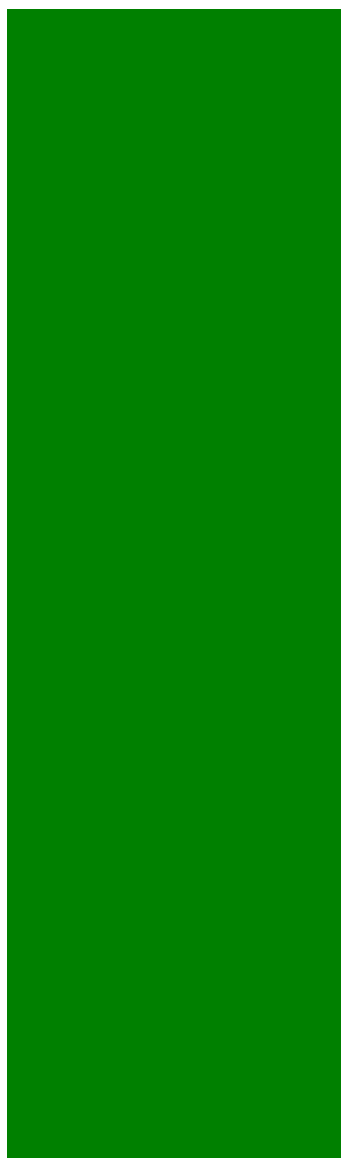


MAKE YOUR CHILD A MATHS STAR!

**A PARENTS' GUIDE TO HELPING
YOUR CHILDREN WITH MATHS**



Booklet 1 of 3:

**Key Stage 1
Year 1 to Year 2**

“IT WASN’T LIKE THIS WHEN I WAS AT SCHOOL!”

Have you ever wished that you understood current Maths methods better? Many parents find that their children are using methods or strategies, which are very different from those used in the past. This can often cause confusion when trying to support your child at home. This booklet has been prepared by First and Middle School teachers of the Dorchester Area Schools Partnership (DASP) to give you a record of the strategies your child will be using in school.

The main methods used in each year group by the majority of pupils for addition, subtraction, multiplication and division 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. Each sheet also shows typical maths vocabulary that children will be acquiring and using at this stage.

This is a guide only, children will always progress at different speeds. However, support from you will undoubtedly be of great benefit to them at all times. If you have any questions, your child’s teacher will be pleased to discuss the strategies with you.

This booklet is part of a series of 3, covering Year 1 to Year 6. This booklet will be supplemented with extra resources available on the DASP website.

www.dasp.org.uk/maths.htm

N.B. If you have downloaded this booklet to print it, you may need to expand your print margins slightly to make it fit.

Turn your child into a Mathemagician!



YEAR 1 - Addition

Practical activities using pictures and practical resources (e.g. counters, blocks).

$$7 + 3$$



Partitioning 14 → 10 + 4 (*14 splits to 10 and 4*)

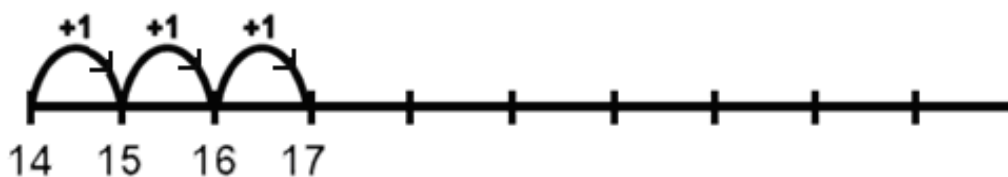
Arrow Cards are used in school to partition:



22 splits to give 20 and 2

Using number line/ tracks for addition:

$$14 + 3$$



*Start at 14, jump on in 'ones' three times
So the answer is 17*

$$14 + 3 = 17$$

Vocabulary:

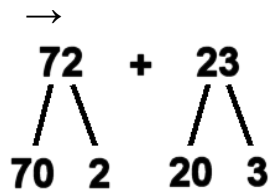
+, add, more, plus, make, sum, total, altogether, score, double, one more, two more, ... ten more, how many more to make...? how many more is... than...? how much more is...?

YEAR 2 - Addition

Practical rather than written, using 100 square.

Horizontal addition

Eg: $72 + 23$



$$\begin{array}{r} (70 + 20) + (2 + 3) \\ 90 \quad + \quad 5 \\ 95 \end{array}$$

Collect the 'tens' together

$$70 + 20 = 90$$

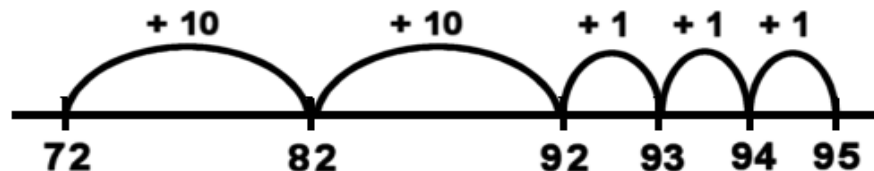
Then collect the 'units' together

$$2 + 3 = 5$$

Find the total $90 + 5 = 95$

Using number line for TU + TU

$$72 + 23$$



Start at 72 – Jump forward in 'tens' twice ($23=20+3$) then jump forward in 'ones' three times.

Vocabulary:

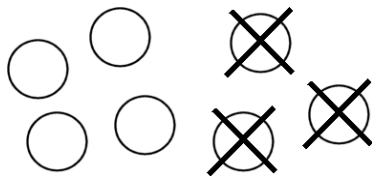
add, addition, more, plus make, sum, total altogether, score, double, near double, one more, two more... ten more... one hundred more, how many more to make...? how many more is... than...? how much more is...?

YEAR 1 - Subtraction

Children use lots of practical activities

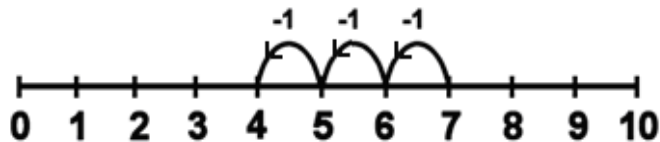
Subtraction as take away

$$7 - 3 = 4$$



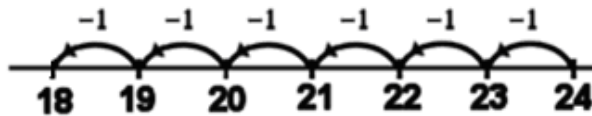
Using objects (e.g. counters, blocks etc.) or draw and cross out.

Using a number line for $7 - 3$ (starting with a printed number line, then moving to a blank one)



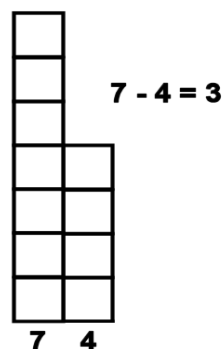
Start at 7, jump back in 'ones' three times
 $7 - 3 = 4$

Same for TU – U using number line
 $24 - 6$



$$24 - 6 = 18$$

Subtraction as finding the difference.



Use practical apparatus (e.g. counters, blocks etc.) to demonstrate the difference.

Difference = 3

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

YEAR 2 - Subtraction

Continuing as lots of practical activities, as for Year 1.

Subtraction as take away.

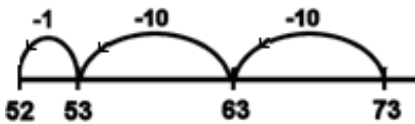
Partitioning $73 - 21$

$$\begin{array}{r} 70 \\ 3 \\ \hline 73 \end{array} - \begin{array}{r} 20 \\ 1 \\ \hline 21 \end{array} = \begin{array}{r} 50 \\ 2 \\ \hline 52 \end{array}$$

Partitioning the tens and units: putting the 'tens' on top of the petal and the units underneath.

*Subtract the tens $70 - 20 = 50$
then the units $3 - 1 = 2$*

Number line $73 - 21$

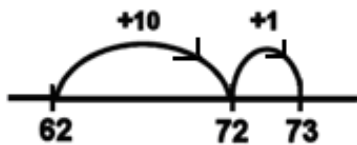


$$73 - 21 = 52$$

Start at 73 – Jump back in 'tens' twice. Then jump back in 'ones' once.

Subtraction as finding the difference (for numbers which are close together)

$$73 - 62$$



$$73 - 62 = 11$$

*Start at 62. Jump 10 to 72 then 1 unit to 73.
Total jumps = $10 + 1 = 11$*

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

YEAR 1 - Multiplication

Practical

X2 x5 x10

Sequences – counting aloud in jumps of 2:

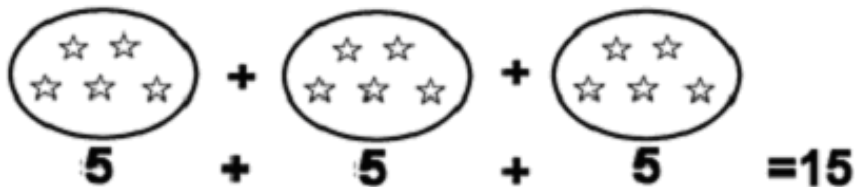
2, 4, 6, 8, 10

5, 10, 15, 20, 25

10, 20, 30, 40

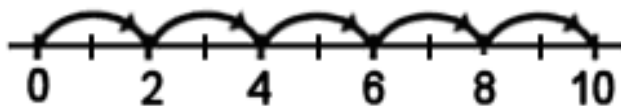
Repeated addition using hands or apparatus or diagrams.

3 x 5



Using a number line for jumps of 2, 5, 10

5 x 2



$$5 \times 2 = 10$$

Vocabulary:

Lots of, groups of, multiply, times, add, steps of, jumps of

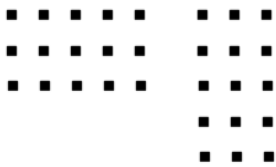
YEAR 2 - Multiplication

x2 x5 x10

Arrays

3 x 5

5 x 3



3 rows of 5 or
5 rows of 3

Multiplication as repeated addition

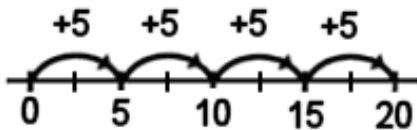
3 x 5



Continuing to use Number lines

4 x 5

4 Jumps of 5



4 x 5 = 20

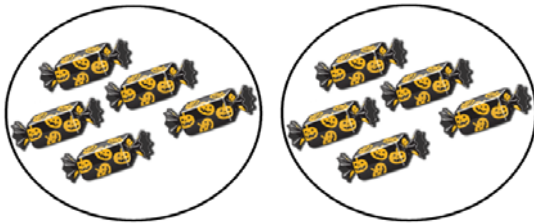
Vocabulary:

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.

YEAR 1 - Division

Lots of practical problems using counters, blocks and sharing out.

Share 10 sweets between 2 children



Each child has 5 sweets.

How many groups of 5 bananas could you make with 10 bananas?



=
2 groups

10 bananas gives two groups of 5 bananas.

Vocabulary:

share, share equally, groups of, divide, how many groups?

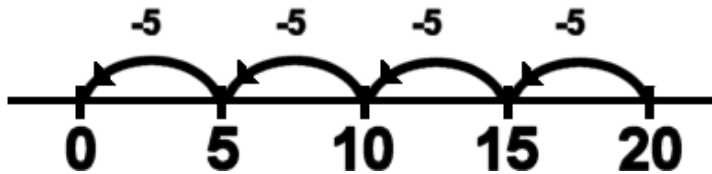
YEAR 2 - Division

Practical division as in Year 1

Division using a number line;

$$20 \div 5 = 4$$

Repeated subtraction



Start at 20

Jump back in 5s to 0

*The number of jumps gives the answer –
4 jumps*

$$20 \div 5 = 4$$

With remainders - sharing using practical apparatus

Share 14 cubes between 4 children



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

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

Vocabulary:

Halve, share, share equally, one each, two each, three each... group in pairs, threes... tens, equal groups of, divide, divided by, divided into, left, left over

The following are some suggested websites that can help support your child's maths.

BBC Maths

<http://www.bbc.co.uk/learning/subjects/maths.shtml>

Woodlands Junior School Maths Zone

<http://www.woodlands-junior.kent.sch.uk/maths/index.html>

Ambleside Primary School

<http://www.amblesideprimary.com/ambleweb/numeracy.htm>

TopMarks Education Resources

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

Loders primary Schools – Maths Problem Solving

<http://www.loders.dorset.sch.uk/HomeSchool/witches/problemsolv.htm>

CoolMath4kids (US Site)

<http://www.coolmath4kids.com/>

Rain Forest Maths

<http://www.rainforestmaths.com/>



The Dorchester Area Schools Partnership (DASP) came into being in 1992. Its mission is simple: to provide the best education for all the students who are educated in the Dorchester area.