

Welcome to our Year 2 Maths Workshop





<u>Aims</u>

- To show you how we teach 'number' skills at school, including place value, addition and subtraction.
- To share some of the apparatus we use in school.
- To show you how you could support your child with their Maths at home.





Example task: Choose a number <100. Represent your number in different ways. <u>Challenge:</u> order and compare



I can talk to you about my number.



The value of the 2 is 20. The value of the 6 is 6.





10p + 10p + 5p + 1p = 26p

<u>Challenge</u>: Use different coins to make 26p.

<u>Challenge</u>: Partition the number in different ways.

26 = 20 + 6

<u>Example task</u>: Talk about your number. Record your calculations.

<u>Challenge</u>: If I wanted to make my number 58, I would need to add ... If I wanted to make my number 17, I would need to ...

Counting skills are important.



The shapes show numbers on a number line.



Match the shapes to the numbers.



We also count in 2s, 5s, 10s and 3s. We look for patterns.

I can solve place value problems.

Tiny uses base 10 to make a number.



 73
 73

 60
 23

 60
 23

 73
 73

 30
 53



a) 56 can be partitioned into and b)



56 can be partitioned into and c)

and

56 can be partitioned into



Is there more than one answer?



Adding makes numbers bigger!





Knowledge of number bonds to 20 is very important.









Here are Ron's cubes.











There are 9 boys and 8 girls in a class. Complete the bar model to show this.



Write the fact family for the bar model.





Identify and b) 7 + 2 = 9 use patterns.







100 square

27 + 6 =

Count on 6 squares, making sure you jump back onto the 100 square in the correct place.

43 + 20 =

Remember, jumping down 2 squares is more efficient.

54 + 32 =

By jumping down 3 squares and on 2 squares – or the other way around!

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



Number lines are an 'efficient method'.





Subtraction makes numbers *smaller*!



100 square

21 - 4 =

Count back 4 squares, making sure you jump back onto the 100 square in the correct place.

52 - 20 = Remember, jumping up 2 squares is more efficient.

87 - 34 =

By jumping up 3 squares and back 4 squares – or the other way around!

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100







We can use arrays to show a multiplication calculation.

When the children draw their own, we encourage the to use circles or dots, but we expose them to lots of different picture arrays.



Words	you need	to know:
times	lots of	sets of

We use repeated addition to help the children to understand multiplication

For example 2 + 2 + 2 + 2 + 2 + 2 = is the same as 6 x 2 =

 Image: Second system
 5+5=

 Image: Second system
 or

 Image: Second system
 2x5=

In year 2 we learn to count in 2s, 5s and 10s.

Children can count on to find their answer, and learn that this is quicker than drawing an array (eg 4 × 10 = 10, 20, 30, 40)

Children need to develop a quick recall of answers these multiplications

For example: 5 x 7 = ____



We can use sharing circles to help us divide. We start by sharing counters between circles and then moving on to drawing circles in our maths book and drawing the counters.



14 ÷ 2 =

Words you need to know: sharing grouping

We can divide also divide by grouping.

For example 20 ÷ 5 = Dividing 20 into groups of 5 (rather than 5 groups) and then counting how many groups there are.

The children will link their multiplication facts to division facts.

We also encourage the children to count in 2s, 5s or 10s to solve division calculations.

For example: 30 ÷ 5 = 5, 10, 15, 20, 25, 30

6 lots of 5



We use coins to make amounts of money up to ± 1 .

It is important that the children understand that $100p = \pm 1$.

We use different coins to make the same amount.

For example: making 45p









or

or









You will need to recognise coins:



Counting in 2s, 5s and 10s can help the children to choose the correct coins

Children will use their addition skills to count amounts of money and use their subtraction skills to work out change.





Mental Maths: Y2 need to know...

- > odd and even numbers
- number bonds to 10 and 20, e.g. 8+2, 7+3, 12+8, 15+5 and apply knowledge e.g. 20 = 9 + ? 3 = 10 ?
- number bonds for numbers within 20, e.g. 4+5=9, 9+2=11 and apply knowledge e.g. 18 = 9 + ?
- instant recall of doubles of all numbers to 10 and halves of all numbers to 20
- count forwards and backwards in 2s, 5 and 10s build towards recalling multiplication and division facts for these times tables and applying knowledge when solving problems
- Extra challenge: number bonds to 100 (10s then 5s, e.g. 70+30, 75+25)



Some expectations for 'secure'

- Partition 2-digit numbers in different ways, e.g. 23 is 2 tens and 3 ones or 1 ten and 13 ones.
- Add any 2-digit numbers, e.g. 48 + 35.
- Subtract any 2-digit numbers, e.g. 74 36.
- Use different coins to make amounts of money, e.g. find 3 different ways of making 20p, find 3 different ways of making 50p using only silver coins.



<u>Which other aspects of Maths</u> <u>could I help my child with?</u>

Time

o'clock, half past, quarter past, quarter to

(to be 'exceeding' - 5 minutes intervals)

Shape

name and describe 2D shapes, e.g. circle, triangle, square, rectangles, pentagons, hexagons and octagons – How many sides? How many corners? How many lines of symmetry?

name, describe and compare 3D shapes, e.g. sphere, cone, cylinder, cube, cuboid, prism, pyramid – How many faces? How many edges? How many vertices? If I draw around a face, which 2D shape will I see?

Measure

draw and measure lines in whole centimetres read scales for length, mass and capacity, e.g. scales counting in 1s, 2s and 10s.

Fractions

work out $\frac{1}{2}$ and $\frac{1}{4}$ of shapes by folding

find fractions of amounts by sharing them into 2 halves, 4 quarters, 3 thirds, e.g. What is $\frac{1}{2}$ of 8? What is $\frac{3}{4}$ of 12? What is 1/3 of 21?



We hope you have found this Maths workshop useful.