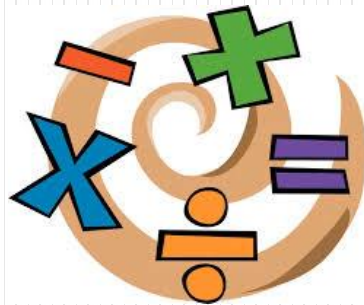


Maths Workshop

Year 1/2



Aims

- **Outline Main Changes in New Curriculum**
- **Discuss Progression in Calculation**
- **Demonstrate Taught Strategies in KS1**
- **Tools – how to use them**
- **Supporting Children at Home**
- **National Curriculum Levels**

New Curriculum – Greater Expectation

Foundation

- Read, Write and Order Numbers to 20
- Double & Halve Numbers
- Add & Subtract 2 single digit numbers (6 + 2, 9 – 3 etc...)

Year 1

- Read, Write and Order Numbers to 100
- Recognise the fractions $\frac{1}{2}$, $\frac{1}{4}$ and $\frac{3}{4}$
- Add & Subtract 2-digit and 1-digit numbers
- Solve problems using 4 operations (+, -, x and ÷) using objects

Year 2

- Recognise fractions $\frac{1}{3}$ and $\frac{2}{3}$
- Add and Subtract 2 numbers up to 2-digits use column addition method
- Count in steps of 2, 3, 5 and 10
- **Know** Number bonds to 20, Doubles & Halves, Add & Subtract mentally, 2, 3, 5 and 10 times table

Progression in Calculation

Addition

$$4 + 2$$

Objects/Counters

Addition

$$7 + 4$$

Number-line

Addition

$$11 + 8$$

$$26 + 12$$

100 Square

Dienes

Subtraction

$$5 - 3$$

Objects/Counters

Subtraction

$$17 - 4$$

Number-line

Subtraction

$$23 - 6$$

$$35 - 12$$

100 Square

Dienes

Multiplication

&

Division

**Sharing &
Doubling**

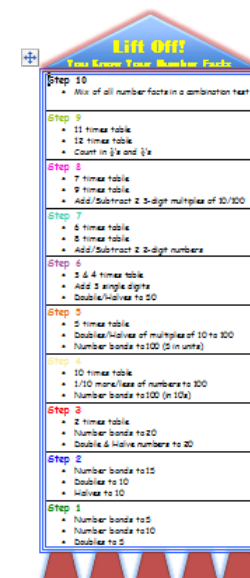
X 2 or \div 2

**Repeated
Addition/
Subtraction**

2, 5, 10, 3 x table

Year 1

- Transition Period – Autumn Term
- Whole Class Teaching – Spring & Summer Term
- Practical Approach – counters, beads, toys
- Home Learning
 - Mathematics
 - Rocket Card
- Addition, Subtraction, Doubling & Halving/Sharing, Basic Word Problems, Shape, Non-Standard Measures (hand span, unifix cubes to measure), Patterns, Money (coins to £1), Basic Fractions, Counting in 2's or 10's, Number Facts (rocket card)



LIFE ONE!
You Know Your Number Facts

Step 10	Mix of all number facts in a combination test
Step 9	11 times table 12 times table Count on 9's and 9's
Step 8	7 times table 8 times table Add/Subtract 2 3-digit multiples of 10/100
Step 7	6 times table 9 times table Add/Subtract 2 2-digit numbers
Step 6	3 & 4 times table Add 3 single digits Double/Halve to 50
Step 5	5 times table Double/Halve of multiples of 10 to 100 Number bonds to 100 (2 in ones)
Step 4	10 times table 1/10 more/less of numbers to 100 Number bonds to 100 (or 10x)
Step 3	2 times table Number bonds to 20 Double & Halve numbers to 20
Step 2	Number bonds to 15 Double to 10 Halve to 10
Step 1	Number bonds to 5 Number bonds to 10 Double to 5



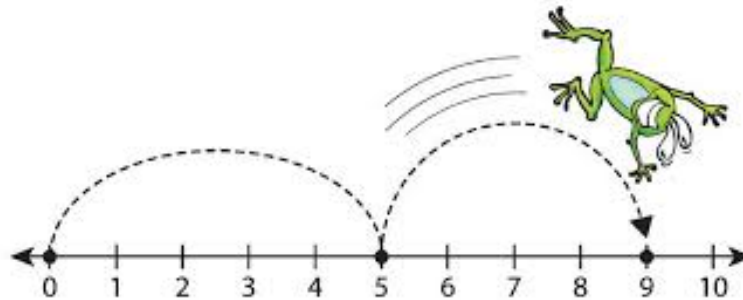
Taught Strategies Year 1



- Some of the strategies taught at school are.....



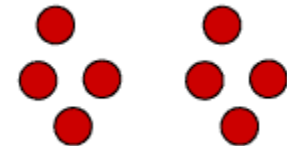
head and fingers



counting on and back



Read **U**nderstand **C**hoose
Solve **A**nswer **C**heck



sharing

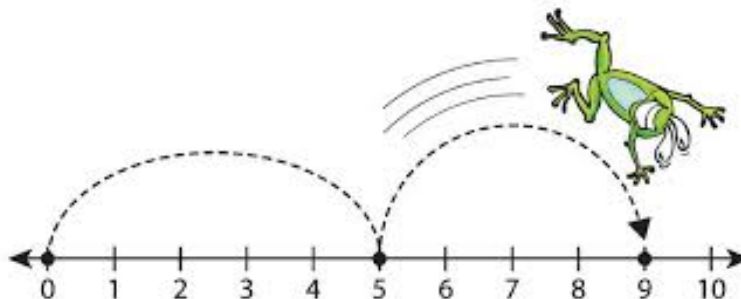
Taught Strategies Year 2



- Some of the strategies taught at school are.....



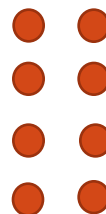
head and fingers



counting on and back



Read **U**nderstand **C**hoose
Solve **A**nswer **C**heck



arrays

$$\begin{array}{r} 22 + \\ 12 = \\ \hline 34 \end{array}$$

column
addition

Tools

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

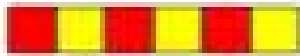
100 square



bead string



number line



cubes/dienes



counters/objects
for counting



100 Square – Finding Patterns

Find patterns on the number square.

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

- What do odd and even numbers always have?
- What's a quick way of adding 10 to any number?
- Taking away 10 from any number?
- Can you find numbers that have the number '3' unit in them?
What do you notice?
- What is a quick way of adding 9?
If you start on 36 jump down to add 10 and jump back to take away 1.

How about adding 11?



100 Square Games



- **Total of 10:** Find pairs of numbers on the hundred square that total 10. How many different pairs can you find? How could you organise your answers so that you know you have found all the possible ways? Extend to totals to 20, 50 and 100.
- **Favourite numbers:** Choose your favourite number from the hundred square. Make up 3 statements about it e.g. it is greater than 30, it is less than 70, it is not in the 10's but it is in the 5's. Can someone else guess your number correctly? If not, let them ask a question to help them.
- **Find the number:** Say a number to your child. Ask them to find it on the hundred square and cover it with a counter. Ask them how they found it. Play to improve. Can you find it quicker next time? How did you do it? Keep playing to improve strategy and explain.
- **Odds and Evens:** Game for 2 players, one person chooses to be 'evens' and one 'odds.' Each player rolls a dice and if the 'odd' player lands on an odd number they cross out an odd number on the square, if not they pass. Next the 'even' player rolls a dice and if they land on an even number they cross out even number, if not they pass. Winner is first to have all numbers crossed out.

Supporting Maths at Home



- Maths rocket
- Door Numbers – Odd & even numbers, place value
- Playing Board Games – Place value and ordering
- Baking – Weighing, capacity, reading scales
- Clocks & Time – Encourage children to wear a watch & tell the time
- Shopping & Working Out ‘Change’- Word problems, +, -, x, ÷
- Food for Counting & Fractions – Pasta shapes, pizza/cake fractions
- Purses & Wallets – Emptying your purse for children to count coins
- Rubik’s Cubes, Puzzles & Toys – Get presents that challenge children
- Internet Activities - www.ictgames.com , www.kenttrustweb.org.uk,
www.woodlands-junior.kent.sch.uk , www.kidsmathgamesonline.com , www.bbc.co.uk

National Curriculum Level

Year 1



National End of Year
Expected Level

Year 2



National End of Year
Expected Level

What Does a 1ME Child Look Like?

- Count to 100 and beyond confidently
- Write numbers correctly - only odd incorrect orientation (3,5,9)
- Use a number line to 50
- Start to use a 100 square
- Know 2D & some 3D shapes – triangle, oblong, cube, sphere
- Count in 2, 5 and 10 and know a range of number facts– doubles, halves to 10, number pairs to 10/15, inverse
- Solve simple word problems - Jack has 18 apples. He eats 4. How many left?
- Add and Subtract numbers
 - 1 digit to 1 digit – $5 + 4 / 7 + 5 =$
 - Low 2 digit to 1 digit – $14 + 4 = / 18 + 5 =$
 - 1 digit from low 2 digit – $16 - 3 = / 22 - 6 =$

What Does a 2ME Child Look Like?

- Count beyond 100 confidently
- Write numbers correctly
- Use a 100 square and empty number line
- Able to use 100 square
- Know 2D & 3D shapes – triangle, oblong, cube, sphere, pyramid
- Count in 2s, 5s, 10s and 3s
- Know Number Facts – doubles, halves to 20, number pairs to 100, understand and use the inverse – $7 \times 5 = 35$ so $35 \div 5 = 7$
- Solve word problems for all 4 symbols of operation - Jack has 11 apples. Jane has twice as many. How many apples does Jane have? What is $\frac{1}{3}$ of 6?
- Fractions of shapes and groups of objects