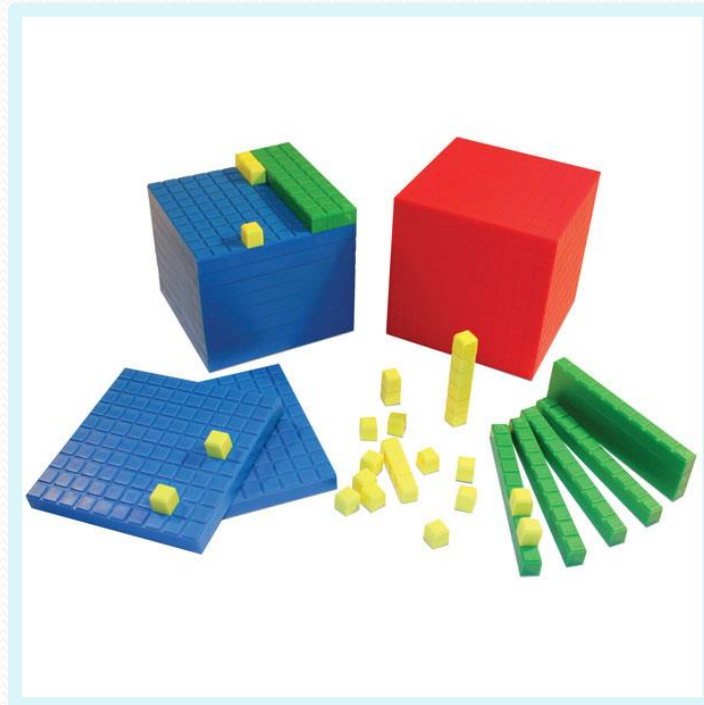


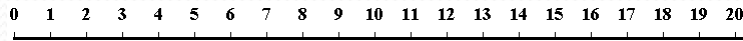
Year 2 Numeracy Methods of Teaching



What do we teach?

- Number bonds up to and including 10 and 20 (ie $7+3=10$, $18+2=20$)
- Using known facts (number bonds)
- Place value (ones, tens and hundreds)
- Addition and subtraction
- Basic multiplication (O x O and TO x O)
- Basic division
- Fractions ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$)
- Time (o'clock, half past, quarter to, quarter past)
- Measurement (weight, length, capacity)
- Money (everyday money- calculating change)
- Handling data (graphing, tables, sorting data)
- Shape and space (2d and 3d, rotation and reflection)
- Problem solving branching across all areas

Resources



- Number line

Number square

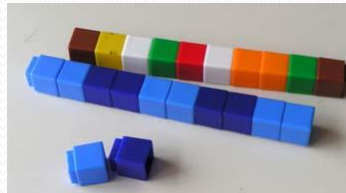
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

- Counters and other counting equipment

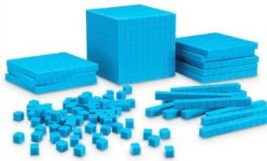


Place value cards

- Unifix sticks



- Base 10



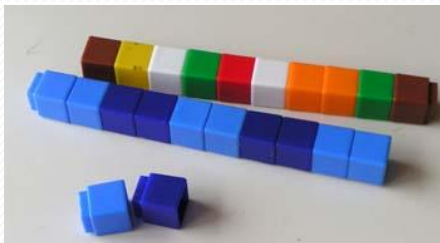
Place Value

- We use base 10 and 100 squares to recognise values of digits in a number.

i.e. make the number 245

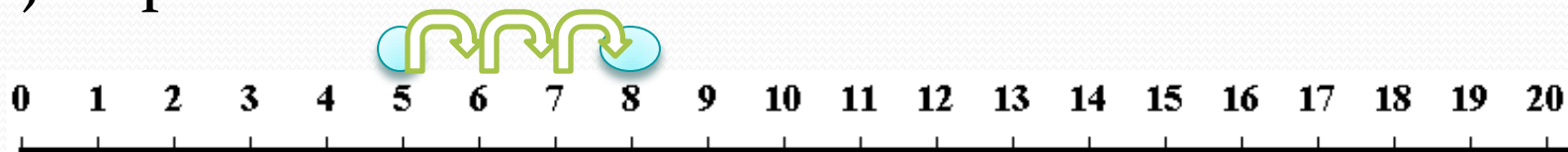
Step 1: separate the to its value
2 hundreds, 4 tens and 5 ones.

Step 2: make that number with place value cards.

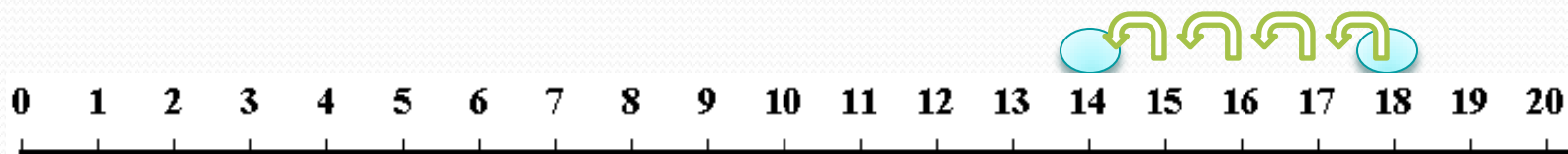


Addition and Subtraction Using a Number Line

- Adding $5 + 3 = 8$
- Step 1 start on the biggest number and count on in jumps.



- Subtracting $18 - 4 =$
- Step 1: start on the biggest number and count back in jumps.



Addition and Subtraction using known facts

- Using number bonds to add to the next ten

e.g. $33 + 7 = 40$ because $3 + 7$ makes 10

- Using number bonds to add numbers 10 or 100 times bigger

e.g. $6 + 4 = 10$ so $60 + 40 = 100$ and $600 + 400 = 1000$

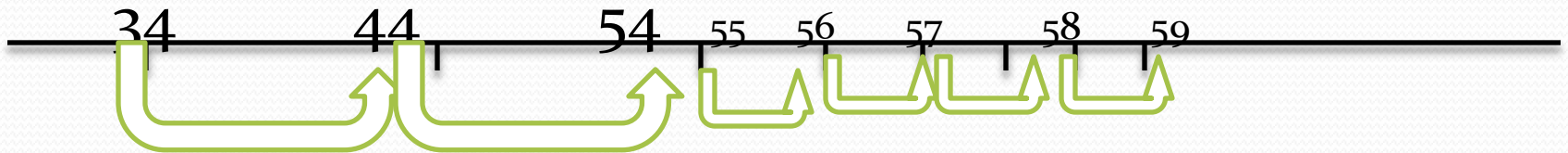
- Using knowledge of adding 10 to add or subtract 9/11

e.g. to add 9, $25 + 10 = 35$, jump back 1 = 34

to add 11, $25 + 10 = 35$, jump on 1 = 36

Using a blank number line

- $34 + 25 = 59$



Step 1: partition 2nd number (25- 2 tens (20) and 5 units)

Step 2: jump the 10's (2 tens)

Step 3: jump the units (5)

Adding 2 2-digit numbers

- $25 + 33 = 58$
- Step 1: partition numbers (tens $20 + 30$) (units $5+3$)
- Step 2: add up the Tens ($20 + 30 = 50$)
- Step 3: add up the Ones ($5+ 3 = 8$)
- Step 4: add both ($50 + 8 = 58$)

- $55 + 26$ (T $50 + 20 = 70$) (O $5+6 = 11$)
- $70 + 11 =$ (T $70 + 10 = 80$) (O $0+1=1$)
- $80+1=81$

Addition and Subtraction with a number square

- Adding 12

$$54 + 12 = 66$$

- Step 1 :Partition the number (one 10, two units) 10 & 2
- Step 2: add on the 10 (down 1)
- Step 3 add on the units (right 2)

Adding 9 :

$$25 + 9 = 34$$

Down 1 left 1

Subtracting 9:

$$25 - 9 = 16$$

Up 1 right 1

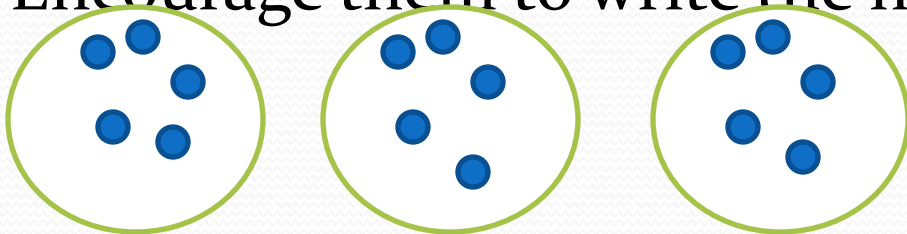
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91	92	93	94	95	96	97	98	99	100

Multiplication

- First children must recognise that multiplication is repeated addition
- No of lots how many per group total

• $3 \quad \times \quad 5 \quad = \quad 15$

- Is the same as 3 lots of 5 or $5 + 5 + 5 = 15$
- Use pictorial cues to represent a x number sentence.
- Encourage them to write the number sentence:



• $5 + 5 + 5 = 15$

Multiplying and dividing by 10

- Children need to recognise that when a number is made ten times bigger or smaller, it is the digits which move to the next place value column, not that we add or take away a zero! They should understand the role of 0 as a place holder, and that without it we would not know the value of the other digits

Hundreds	Tens	Units
	2	3
2	3	0

$23 \times 10 = 230$

Practical maths

Making maths practical by using real materials. Try some of these at home with your child.

- Using coins



using food

- Using measuring cups



cooking



Vocabulary

- Hundred, Tens and Ones – place value
- Number sentence – what we call written ‘sums’
- Adding – total, sum, altogether, makes
- Subtracting – take away, less, from, difference between
- Number bonds – two numbers which match to make a specified total
- Number line – line with numbers in order
- Grid method – a way of laying out a calculation in place value columns