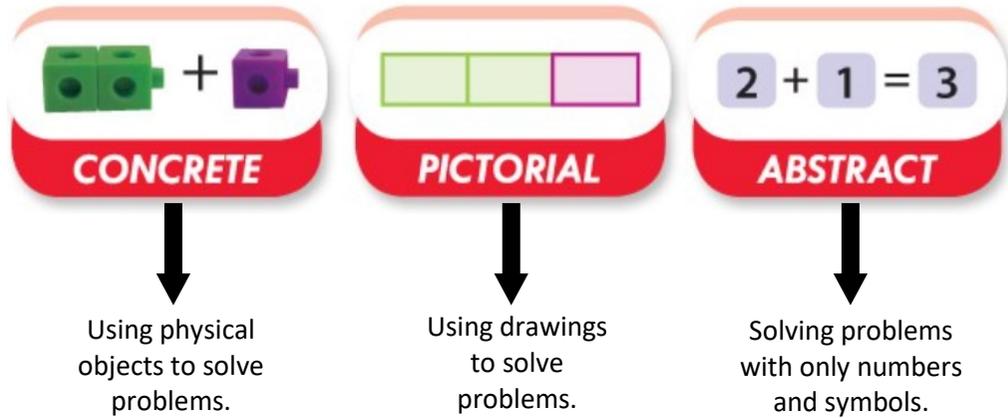


Methods of Calculation

KS1

At St. Walburga's, we use a CPA (Concrete, Pictorial, Abstract) approach to teach maths.



Resources we use in our maths lessons

- Counters
- Rekenrek
- Base 10
- Numicon
- Arrow Cards
- Number Lines
- Multilink
- Bead String
- 10 Frames
- 100 Square

+

Addition and Subtraction

Reception Year 1 Year 2

$4 + 3 = 7$

$7 - 3 = 4$

Using objects and pictures

Spotting and using number facts to quickly add three 1-digit numbers

$2 + 3 + 8 = 13$ (Number bond)

$6 + 6 + 2 = 14$ (Double fact)

Counting on or back using a number line

$4 + 3 = 7$

$7 - 3 = 4$

$34 + 8 = 42$

$62 - 5 = 57$

Putting the biggest number in your head and counting on or back

Counting on or back using a number line

Using number bonds to jump to the next multiple of 10

Adding or subtracting multiples of 10

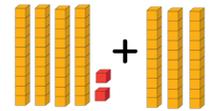
$$42 + 30 = 72$$

$$84 - 20 = 64$$

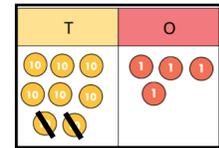
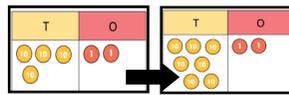
Using a 100 square

| | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|-----|
| 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 |

Using or drawing Base 10



Using place value counters

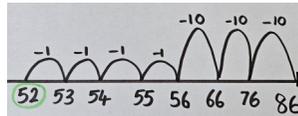
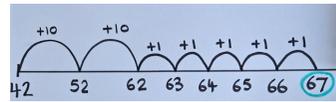
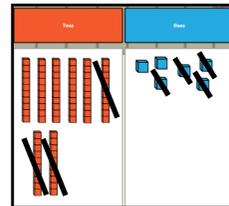
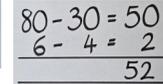
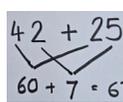
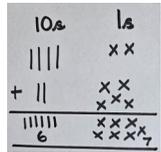
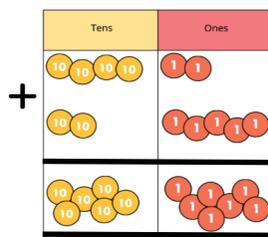


Children should also work towards doing this in their heads

Children think about how many tens and ones are in a number, then add or subtract the ones and tens separately

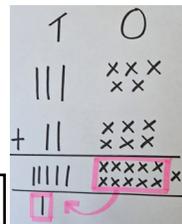
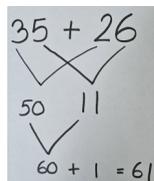
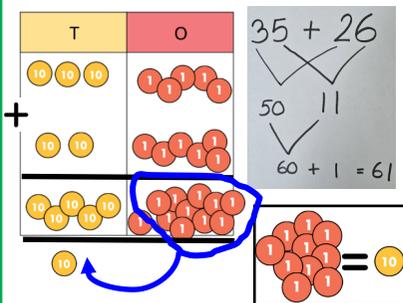
$$42 + 25 = 67$$

$$86 - 34 = 52$$



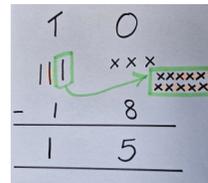
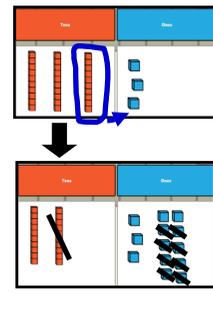
Addition - Regrouping (more than 10 ones)

$$35 + 26 = 61$$



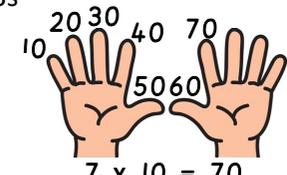
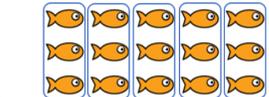
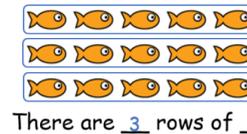
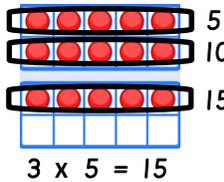
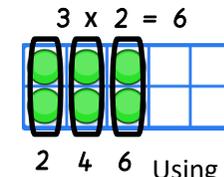
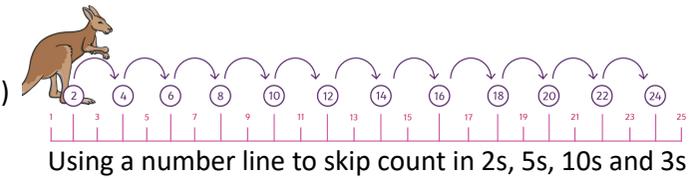
Subtraction - Exchanging (taking away more ones than we have)

$$33 - 18 = 15$$



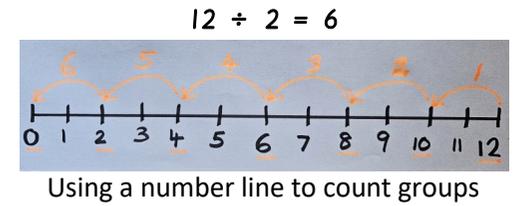
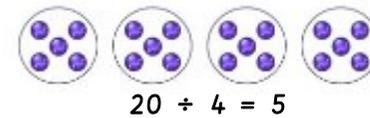
Multiplication

('groups of' or 'lots of')

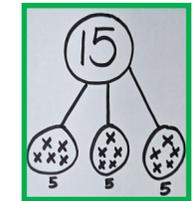
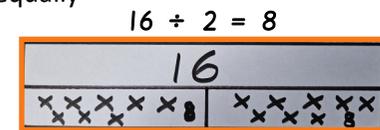
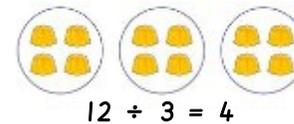


Division

(sharing)



Using objects or pictures to share equally



Place Value - What's inside a number?

How many tens and ones are inside 2-digit numbers?

26 = 2 tens and 6 ones

26 = 20 + 6 26 = 10 + 16

| | |
|-----------|-----|
| 26 | |
| twenty | six |
| | |
| 20 | 6 |