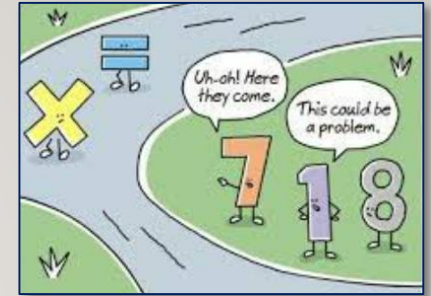


What did zero say to eight?



MATHS HOW TO HELP YOUR CHILD

YEAR 2: FEBRUARY 2024



Our Culture and Ethos of Maths

'Understanding of number is a fundamental life skill. The culture and ethos at Leasowes is about breaking the perception of 'I can't do maths', converting reluctant mathematicians into resilient and confident learners.

We incorporate sustained levels of challenge through varied and high-quality activities with a focus on fluency, reasoning and problem solving to meet the goal of 'True Fluency'. We instil courage and an acceptance that challenge is often a necessary step in learning.'

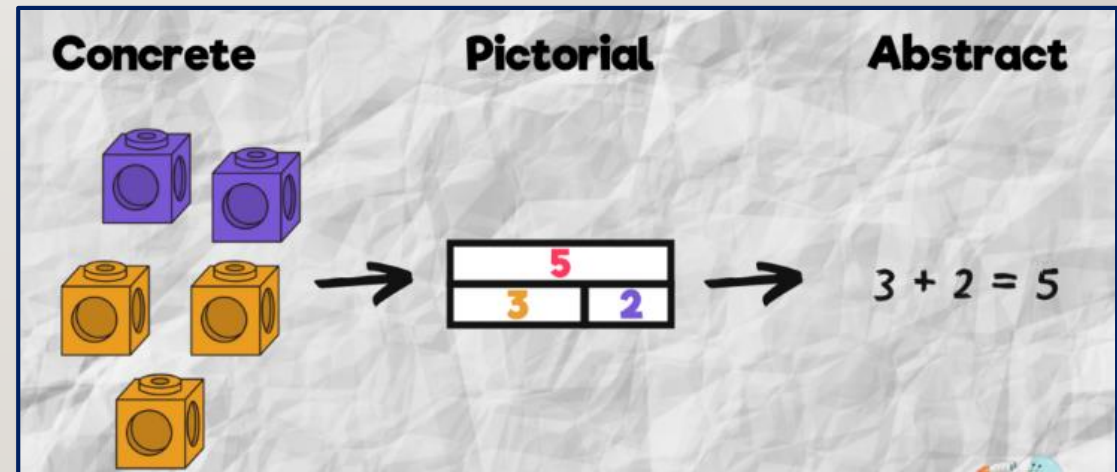
'The Golden Thread' NUMBER

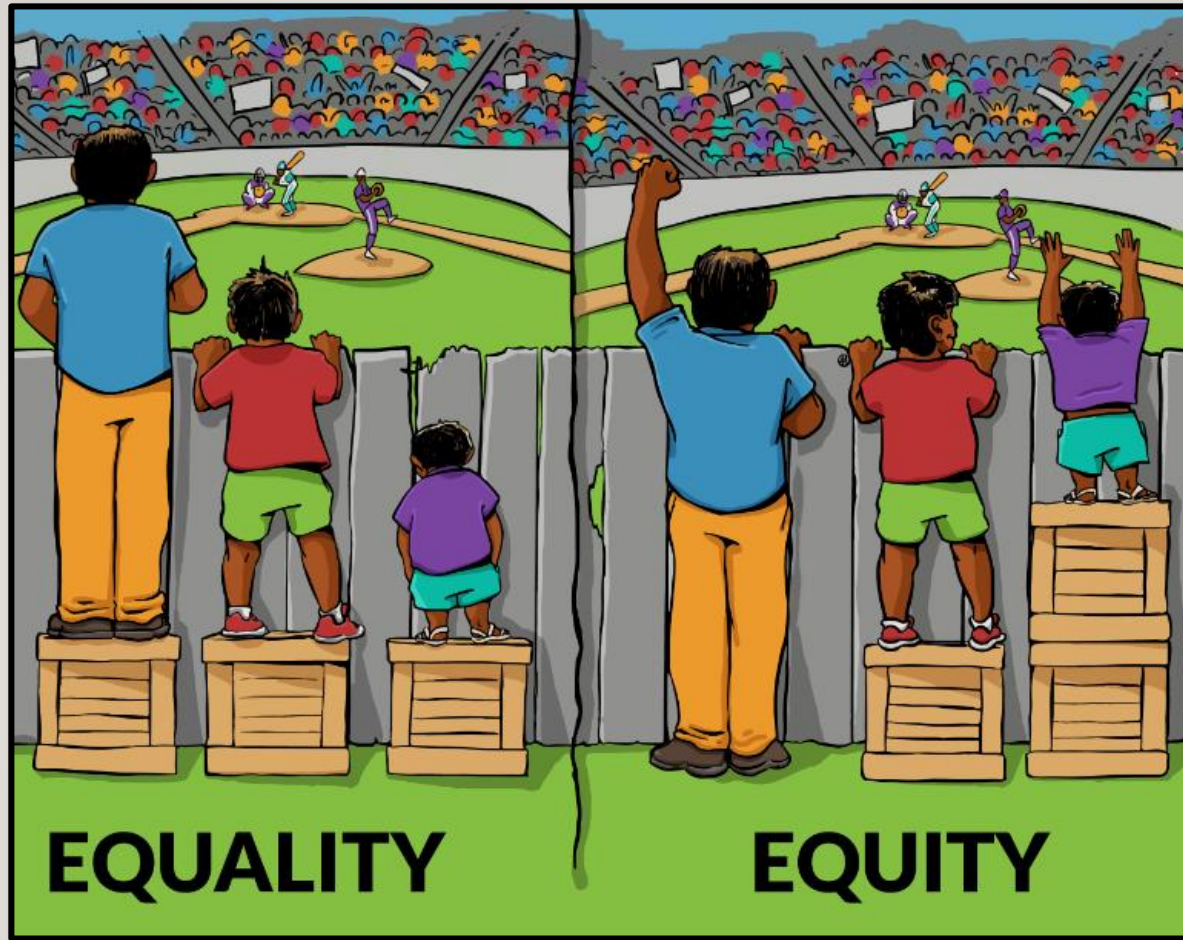


A skill for
LIFE!

*'We understand, that the children who thrive in maths, flourish because they are able to see the pattern and interconnections within the given concept. The CPA approach gives all children the opportunity to do this, ensuring that our teaching of **Maths is equitable**. We use effective resources and scaffolding; creating many concrete and pictorial opportunities before introducing the abstract. This enables the children to build a clearer understanding, connecting their knowledge and skills and therefore visualising the problem at hand when working in the abstract form.'*

Leasowes Maths Policy





doing

C

Concrete



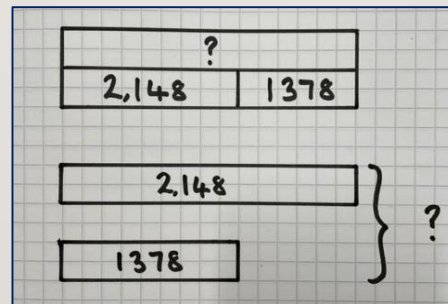
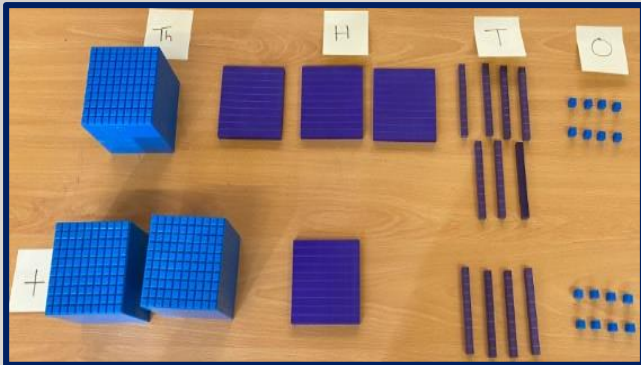
P

Pictorial

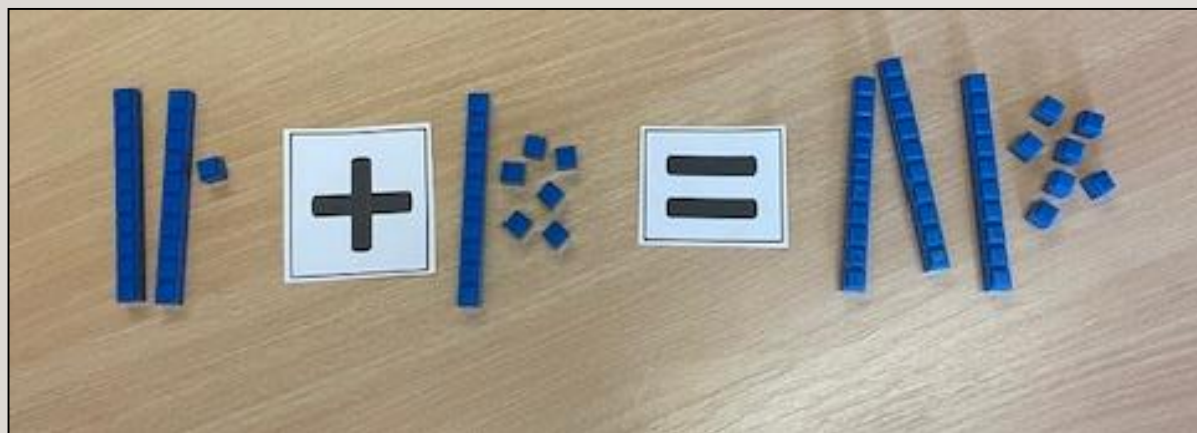
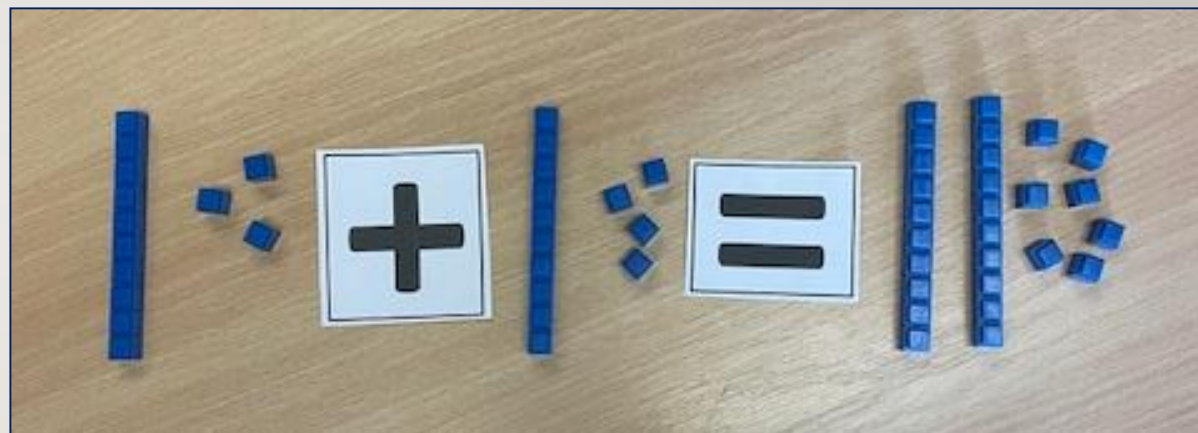
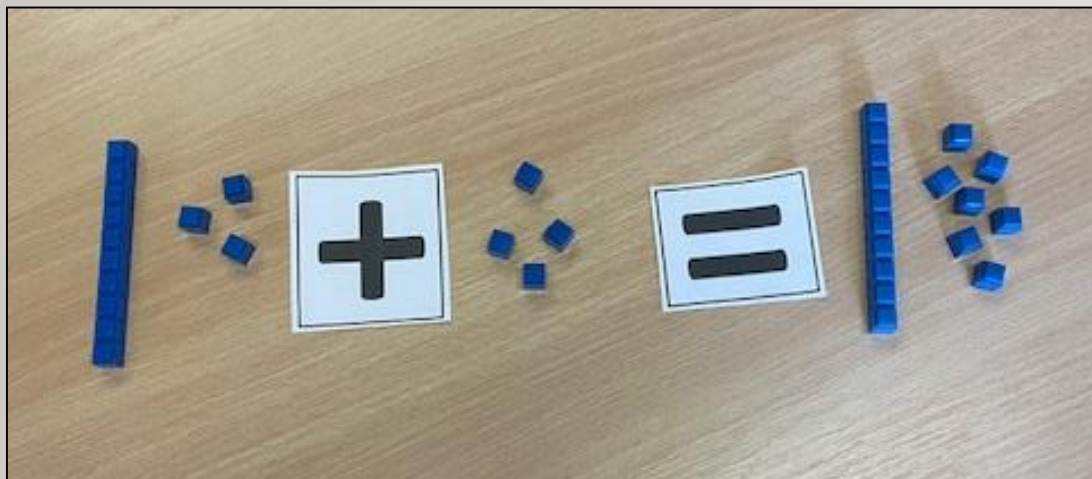


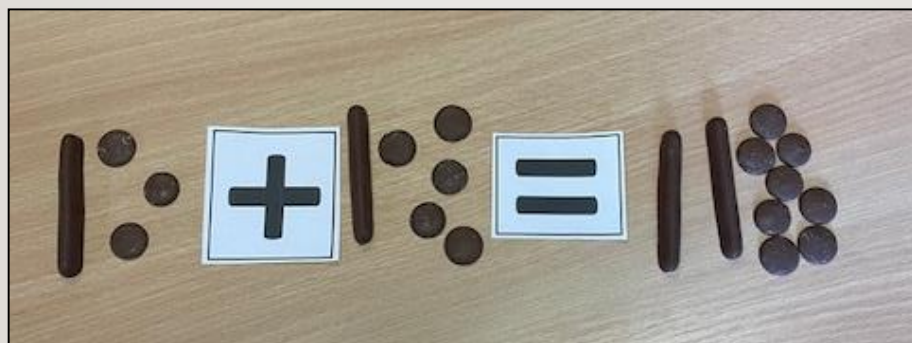
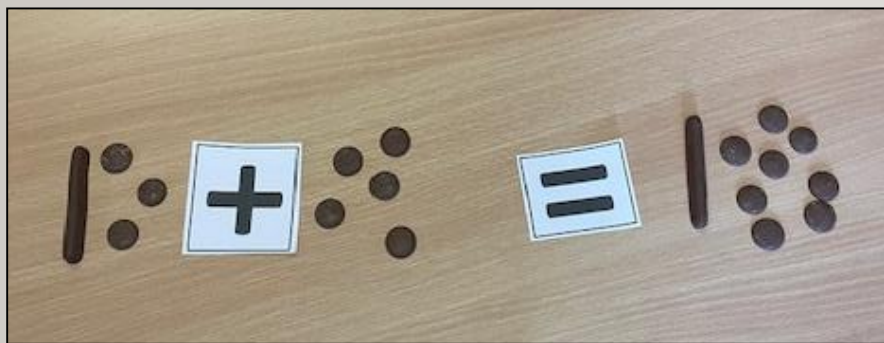
A

Abstract



| | | | | |
|---|---|---|---|---|
| | 1 | 3 | 7 | 8 |
| + | 2 | 1 | 4 | 8 |
| | | | | |
| | 3 | 5 | 2 | 6 |
| | | | | |
| | 1 | 1 | | |





Part-Whole Model



Part-Whole Model



| Tens | Ones |
|------|------|
| | ∴ |
| | ∴∴ |
| | ∴∴∴ |

| | |
|----|----|
| ? | |
| 13 | 24 |

| | |
|----|----|
| 37 | |
| 13 | 24 |

| Tens | Ones | Total |
|------|------|-------|
| | ∴ | 13 |
| | ∴∴ | 24 |
| | ∴∴∴ | 37 |

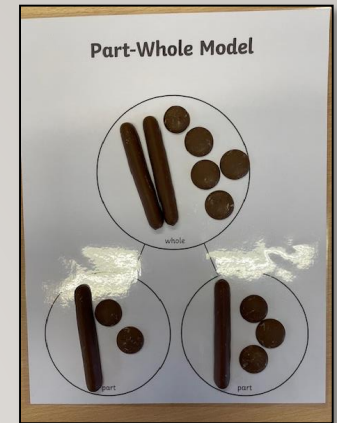
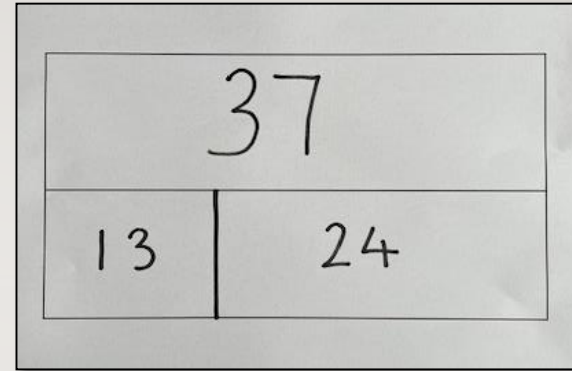
| | |
|----|----|
| 37 | |
| 13 | 24 |

$$13 + 24 =$$

$$\begin{array}{r} 13 \\ + 24 \\ \hline 37 \end{array} \quad \begin{array}{r} 24 \\ + 13 \\ \hline 37 \end{array}$$

$$24 + 13 = 37$$

$$13 + 24 = 37$$

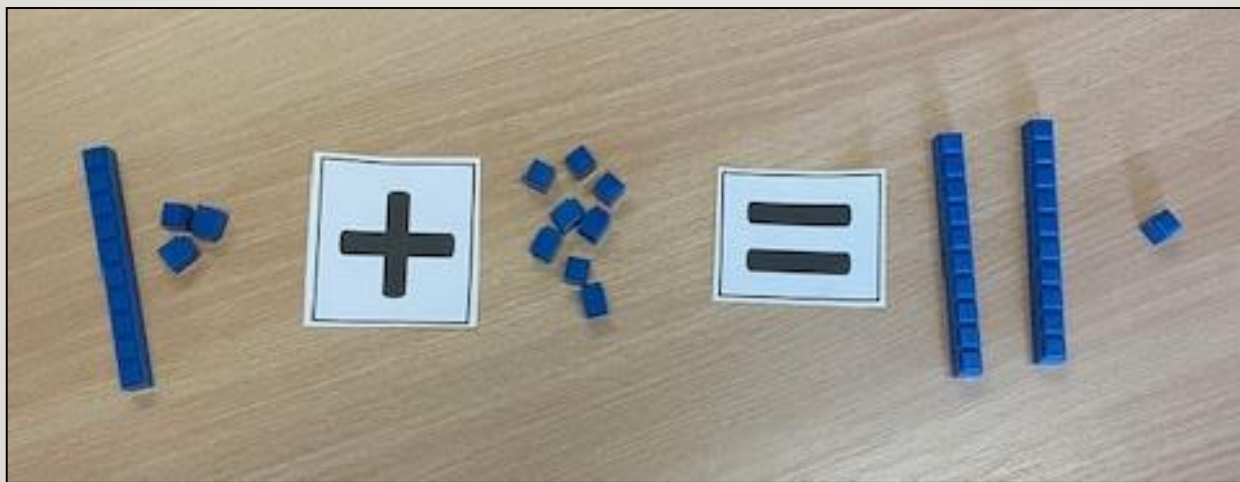
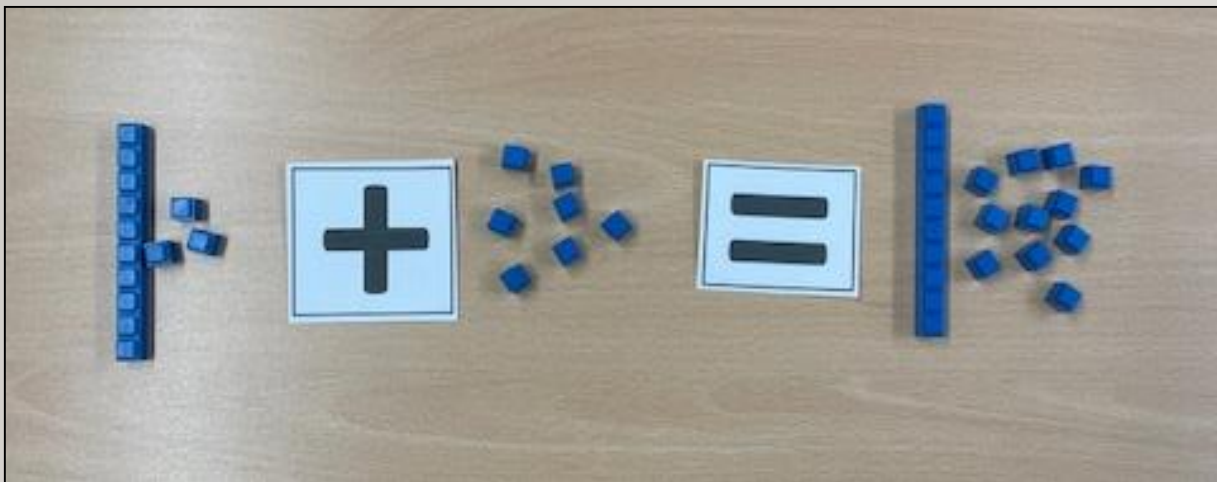


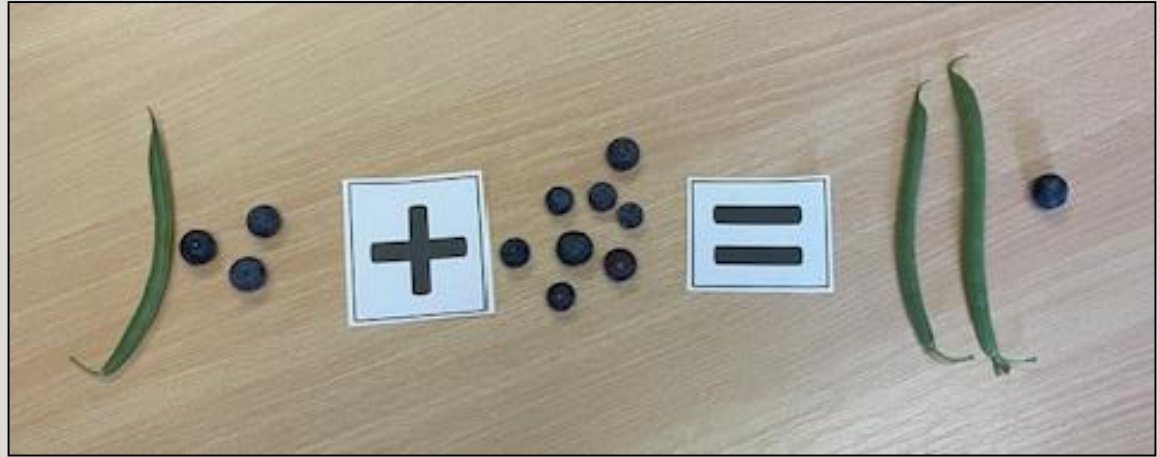
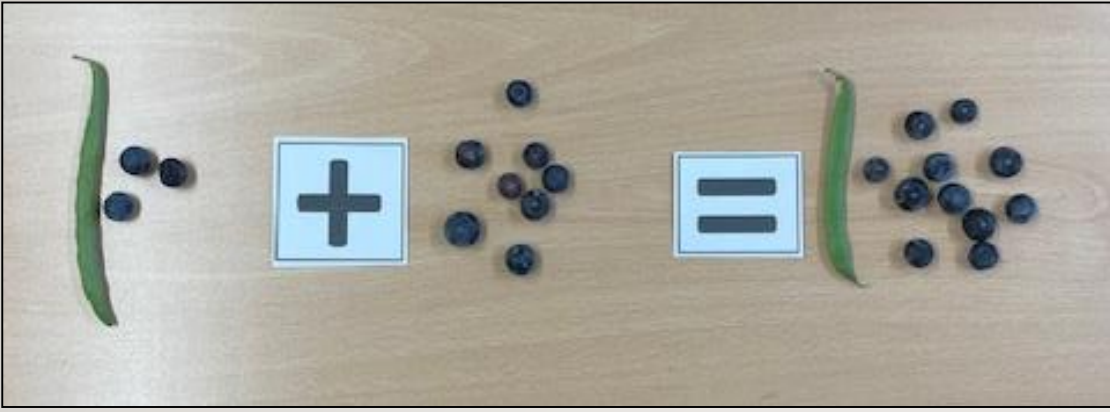
$$24 + 13 = 37$$

$$13 + 24 = 37$$

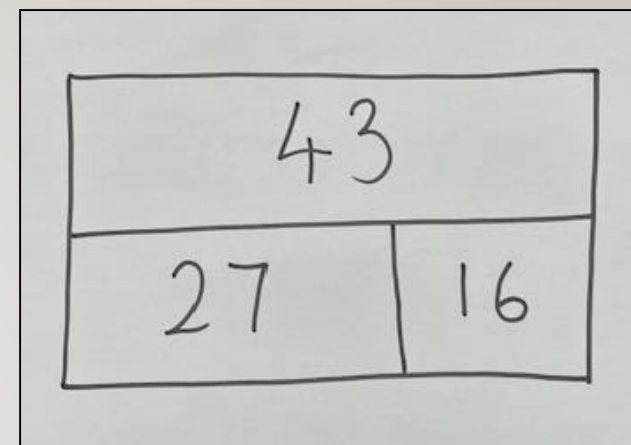
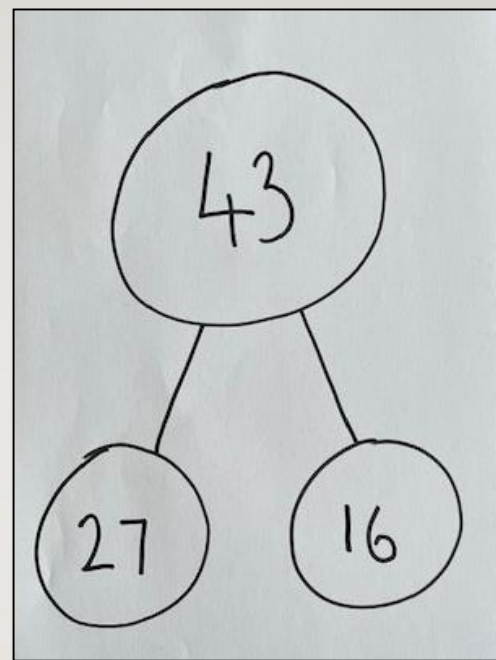
$$37 - 24 = 13$$

$$37 - 13 = 24$$





| Tens | Ones | Total |
|------|-----------|-------|
| | •••• | 27 |
| | •••• | 16 |
| | 1 ← ••••• | 43 |



$$\begin{array}{r}
 27 \\
 + 16 \\
 \hline
 43 \\
 \hline
 \times
 \end{array}$$

$$27 + 16 = 43$$

$$43 - 16 = 27$$

| | |
|----|---|
| 37 | |
| 24 | ? |

$$24 + 13 = 37$$

$$13 + 24 = 37$$


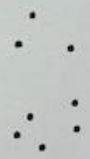
$$37 - 24 = 13$$





$$37 - 13 = 24$$

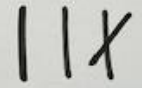
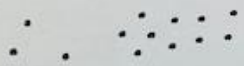




MISCONCEPTIONS







$$3 - 5 = ?$$



| Tens | Ones |
|---|---|
|  |  |
| <hr/> | |
| | |

| Tens | Ones | Total |
|---|---|-------|
|  |  | 33 |
|  |  | 15 |
| <hr/> | | |
| | | |

| Tens | Ones |
|---|---|
|  |  |
|  |  |
| <hr/> | |
|  |  |

| Tens | Ones | Total |
|--|--|-------|
|  |  | 23 |
|  |  | 15 |
| <hr/> | | |
|  |  | 18 |

| | |
|----|---|
| 33 | |
| 15 | ? |

$$\begin{array}{r} 23 \\ - 15 \\ \hline 18 \end{array}$$
$$33 - 15 = 18$$
$$18 + 15 = 33$$

Times Tables

National Curriculum: Year 2 Expectation

- Count in steps of 2, 3 and 5
- Recall and use multiplication and division facts for 2, 5, 10 multiplication tables

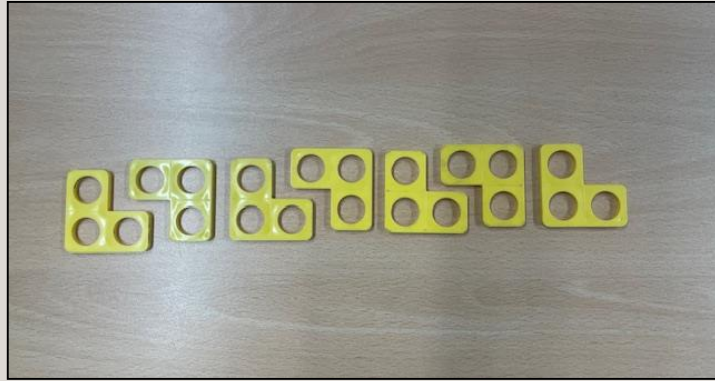
National Curriculum: Year 3 Expectation

- Recall and use multiplication and division facts for 3, 4, 8 multiplication tables

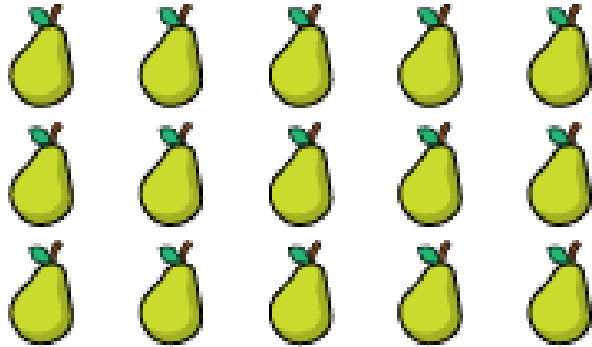
National Curriculum: Year 4 Expectation

- Recall and use multiplication and division facts for all multiplication tables to 12x12

2
10
5
3
4
8
6
9
11
12
7



How many pears are there?



There are:

3 lots of 5, which is:

$5 + 5 + 5 = 15$, which is:

$3 \times 5 = 15$

There are:

5 lots of 3, which is:

$3 + 3 + 3 + 3 + 3 = 15$, which is:

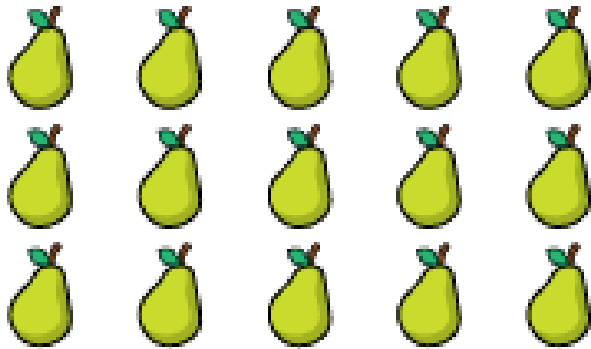
$5 \times 3 = 15$

Which means that:

3×5 is the same as 5×3

$$5 \times 6 = ?$$

How many pears are there?



If we shared the pears between 3 friends, that would be:

$$15 \div 3 = 5$$

If we shared the pears between 5 friends, that would be:

$$15 \div 5 = 3$$

Which means that if:

$$15 \div 5 = 3, \text{ then } 3 \times 5 = 15$$

Things to do away from school ...



+

-

x

÷

=

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

hundreds

tens

ones

