

Year 2 Maths Meeting

November 2021

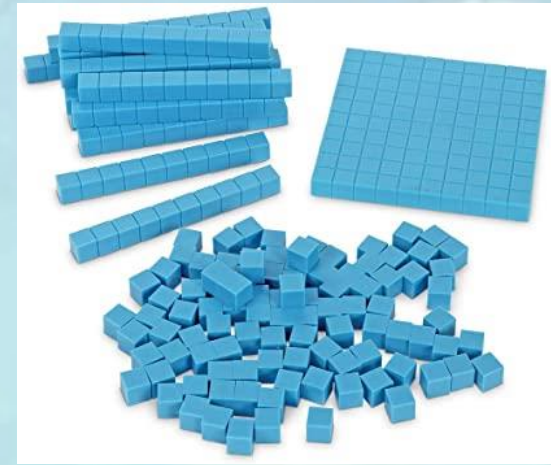


What we cover in Maths in Year 2:

- Building on from the Maths taught in Reception and Year 1:
 - Place value (0-120)
 - Identifying number patterns
 - Identifying odd and even numbers
 - 2, 5 and 10 times table moving on to 3 times table (using the \times and \div symbols)
 - Adding and subtracting two digit and single digit numbers (using the $+$ and $-$ symbols)
 - Measurement: weight, length, telling the time (quarter of an hour/5 minute increments)
 - Creating and interpreting graphs (pictograms, bar charts, tally charts etc.)
 - Halving & doubling
 - Calculating $\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$, $\frac{1}{3}$, $\frac{2}{3}$ of a number (including multiples of 10)
 - 2D and 3D shapes (lines of symmetry in 2D shapes)
 - Position and direction

Maths in Year 2

- Using resources to develop children's confidence with manipulating numbers (Numicon, Dienes/Base Ten, counters)
- Developing use of drawing methods - column methods are introduced in Year 3
- Focusing on number – recall of number facts including number bonds up to 20 and times tables and division facts



Year 2 Maths SATs

- Year 2 children are required to complete SATs in Term 5
- 2 Maths papers:
 - arithmetic (25 questions)
 - reasoning (32 questions)
- Cannot use resources for SATs



Arithmetic Paper

9	$7 + 8 + 2 =$	<input type="text"/>		

10	$34 + 15 =$	<input type="text"/>		

Reasoning Paper

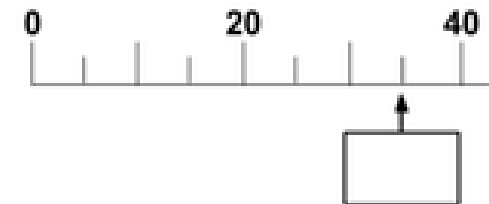
3 Complete the table.

words	digits
twenty-six	26
	18
forty	



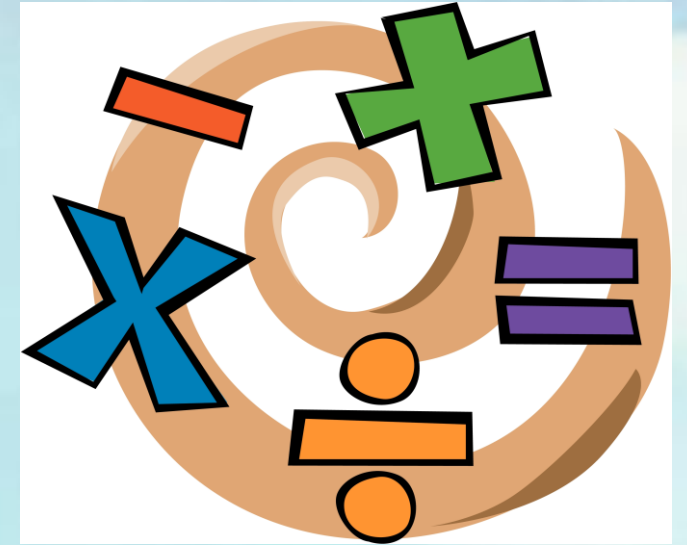
4 Look at the number line.

Write the correct number in the box.



Arithmetic Methods

- In Year 2, the children learn how to:
 - Add and subtract single and two digit numbers
 - Multiply and divide by 2, 3, 5, and 10
 - Calculate fractions of amounts



Number Facts

- Number bonds within, and including, 20

$$4 + \underline{\quad} = 10$$

$$5 + 13 = \underline{\quad}$$

$$3 + \underline{\quad} = 17$$

- Doubling/near doubles of numbers up to 10

$$6 + 6 = \underline{\quad}$$

$$8 + 9 = \underline{\quad}$$

- Halving even numbers up to 20

$$14 = \underline{\quad} + 7$$

Understanding and Representing Numbers


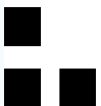
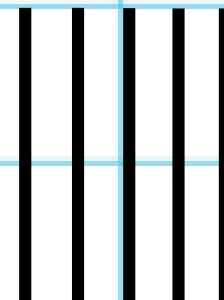

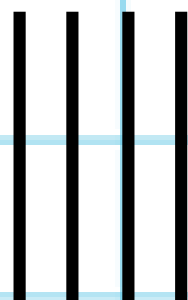
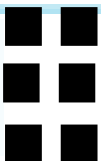


- Focus on understanding exactly what a numeral means:



We ask children to draw out numbers, so 45 would be:



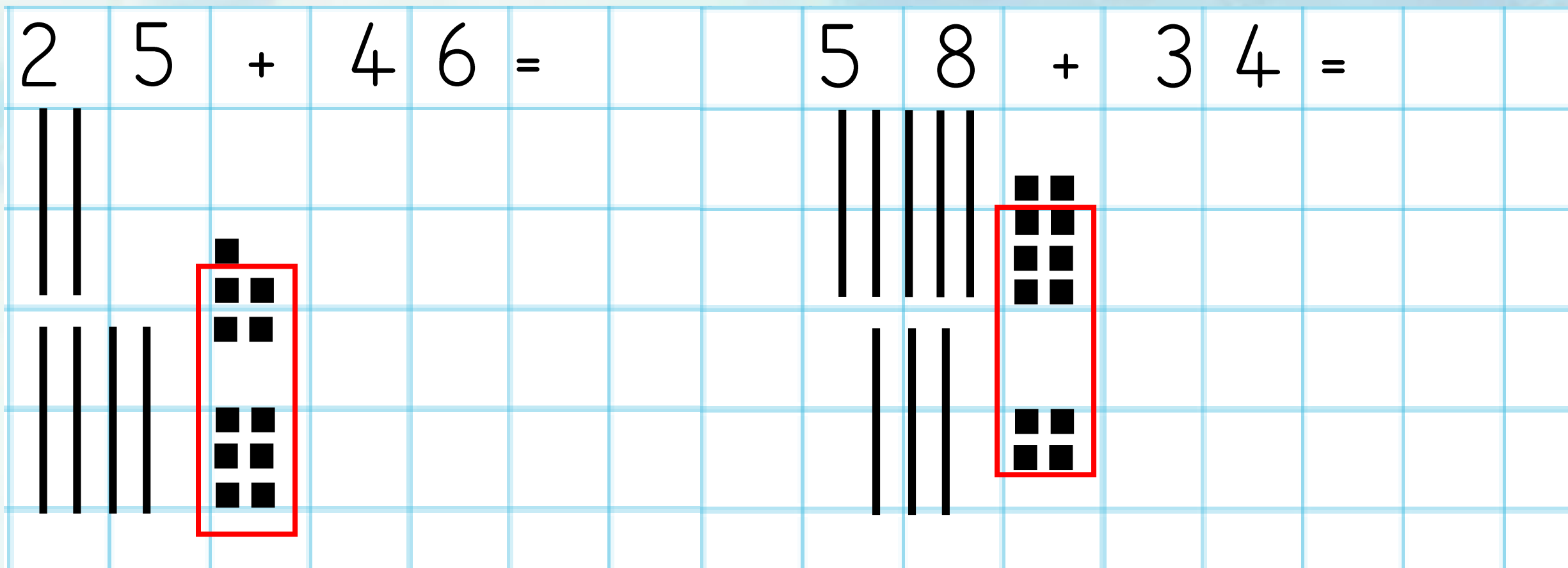
The image displays base ten blocks. At the top left, there are four rods, each representing 10 units. To their right is a flat square representing 100 units. Below the rods are three more rods. In the foreground, there is a large pile of small cubes, each representing 1 unit.

- | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|--|--|---|---|---|---|---|---|--|--|
| 2 | 3 | + | 4 | 6 | = | | | 5 | 2 | + | 3 | 4 | = | | |
|  | | |  | | | | |  | | |  | | | | |
|  | | |  | | | | |  | | |  | | | | |


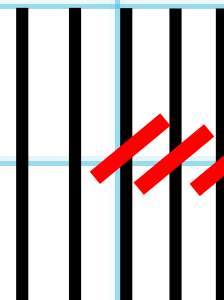









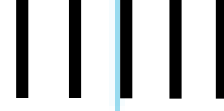

Addition - Bridging Ten



- For addition and subtraction, the children have been practising using Dienes/Base Ten.



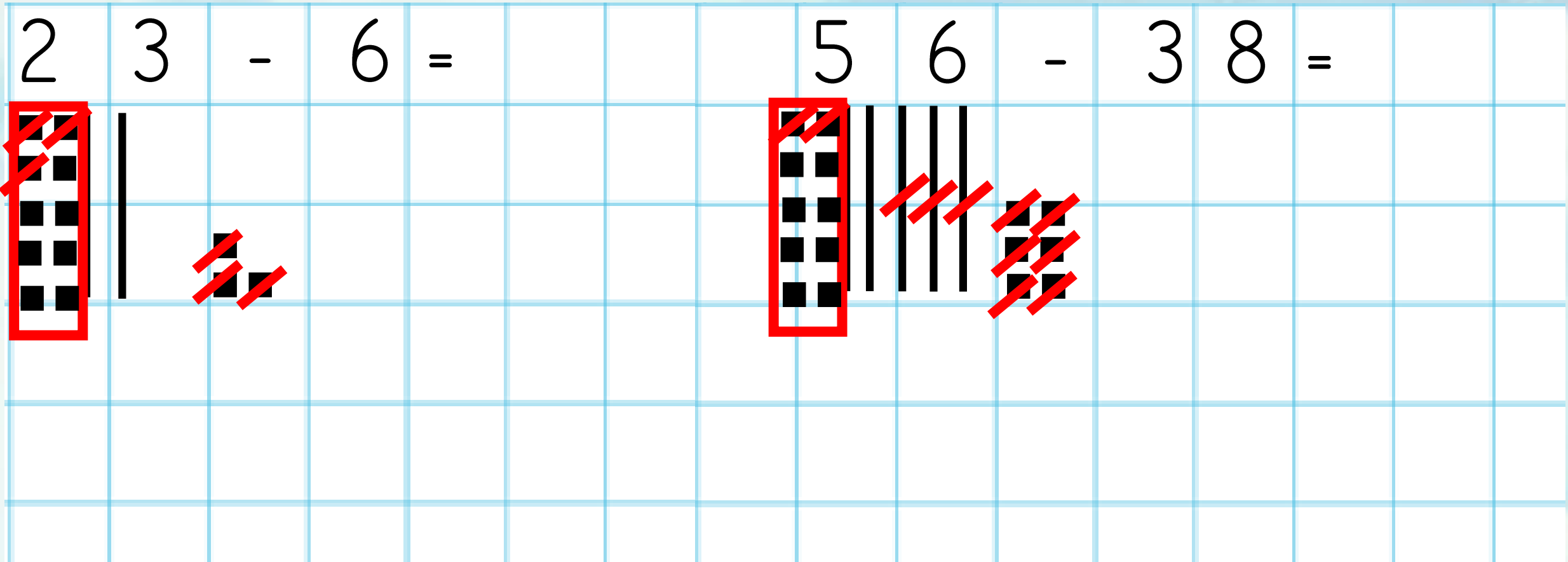
A photograph of base ten blocks. There is one large 10x10 flat (hundreds block), three 10x1 rods (tens blocks), and a pile of 1x1 units (ones blocks).

- | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|--|--|--|---|---|---|---|---|---|--|--|--|
| 2 | 3 | - | 1 | 2 | = | | | | 5 | 6 | - | 3 | 4 | = | | | |
|  | | | | | | | | |  |  | | | | | | | |
|  | | | | | | | | |  |  |  |  |  |  | | | |
|  | | | | | | | | |  |  | | | | | | | |

Subtraction - Bridging Ten



- For addition and subtraction, the children have been practising using Dienes/Base Ten.



Other examples of addition and subtraction are:

$$87 - 40 =$$

$$5 - 2 =$$

$$19 - 9 =$$

$$6 - \underline{\quad} = 4$$

$$\underline{\quad} + 4 = 9$$

Some children will draw the ones and cross them out and others will count back in their head.

Children should be starting to recall number bonds within 10 from memory to support their addition and subtraction. Using inverse where necessary.

Adding Three Single Digit Numbers



- Children need to know that addition can be done in any order.

$$3 + 7 + 5 =$$

$$6 + 6 + 7 =$$

$$9 + 1 + 6 =$$

- Children can draw out ones to find the answer but preferably when adding three single digit numbers, children need to look for number bonds to 10 and doubles to help them calculate the answer.

Multiplication

- Children should know that multiplication can be done in any order.
- Children need to recall times table facts for the 2, 5, 10 times tables recognising that 2×3 is the same as 3×2 . They can calculate this by counting in 2s, 5s and 10s or by drawing out pictures to calculate the answer.
- Following the 2, 5 and 10s times table, children should move on to counting in threes and recalling the three times tables.
- Children must also remember that anything multiplied by zero is zero, e.g. zero lots of two biscuits equals no biscuits!

Multiplication & Division

- Using their knowledge of times tables, children should be able to recognise the inverse (division).
- When dividing, we ask the children to draw an arrow:


$$15 \div 5 =$$

- This reminds us that we are thinking about 'how many fives there are in 15'.
- Children will then recall, $5 \times 3 = 15$ or they can count up in 5s to see how many 5s are needed to make 15.

Doubling and Halving

- By the end of year 2, children need to recall doubles and halves fluently to 20.

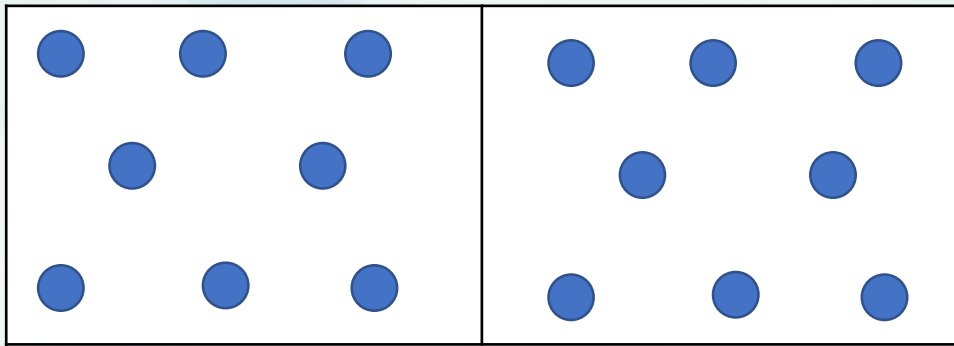
Double 6 = 12 so Half of 12 = 6

Double 9 = 18 so Half of 18 = 9

- We teach these facts together as they are connected.
- Children will then go onto halve multiples of 10 e.g. half of 80 is 40 and find half of two digit even numbers e.g. Half of 84 = 42

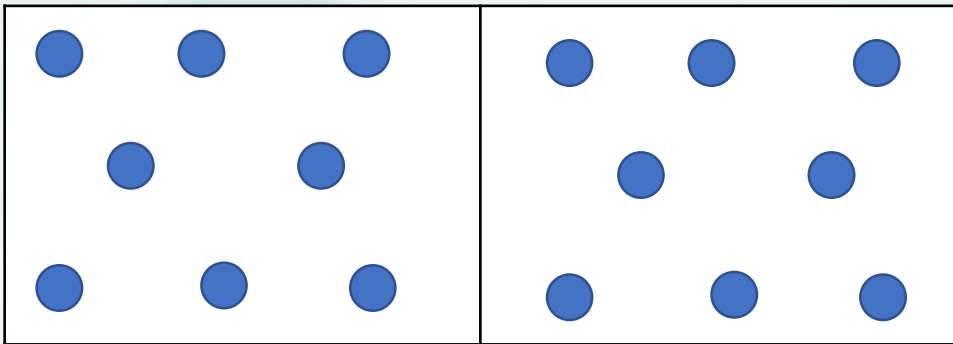
Halving Two Digit Numbers

Half of 16 =

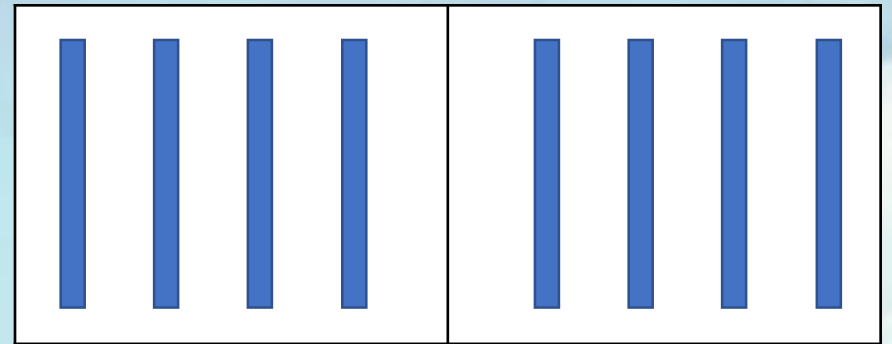


Halving Two Digit Numbers

Half of 16 =

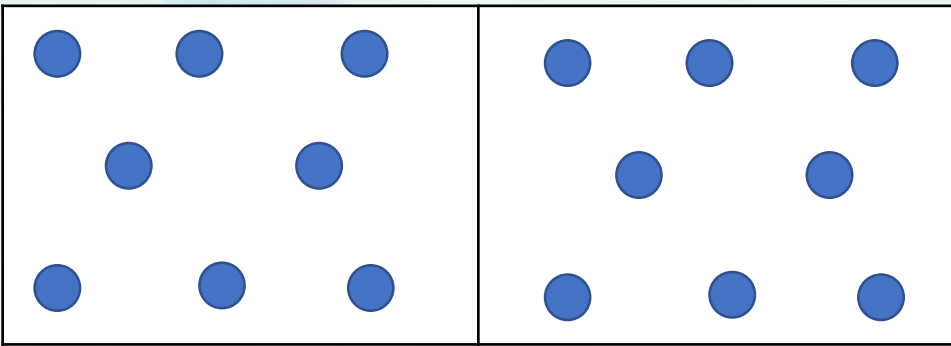


Half of 80 =

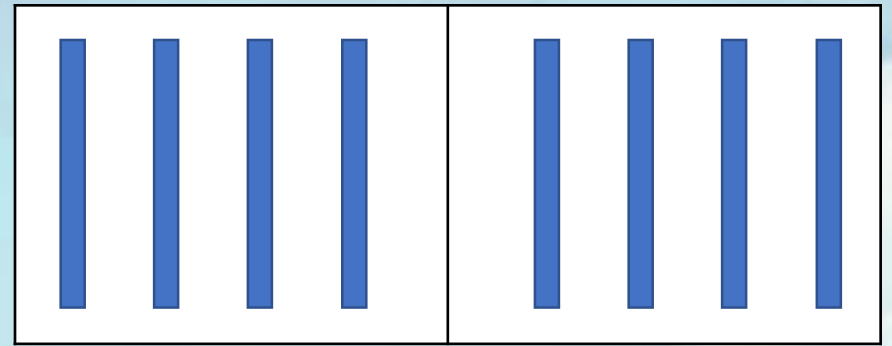


Halving Two Digit Numbers

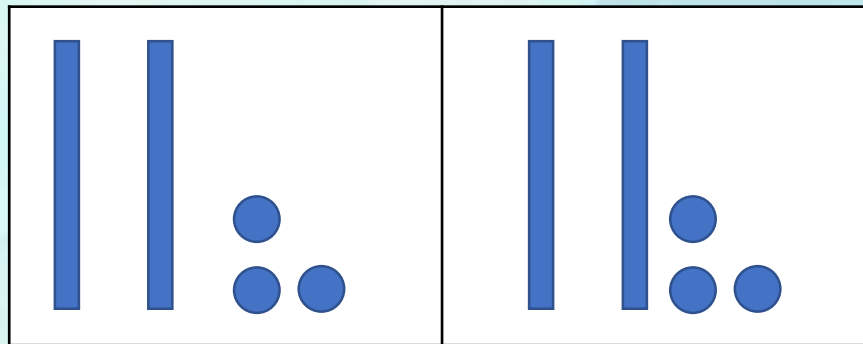
Half of 16 =



Half of 80 =

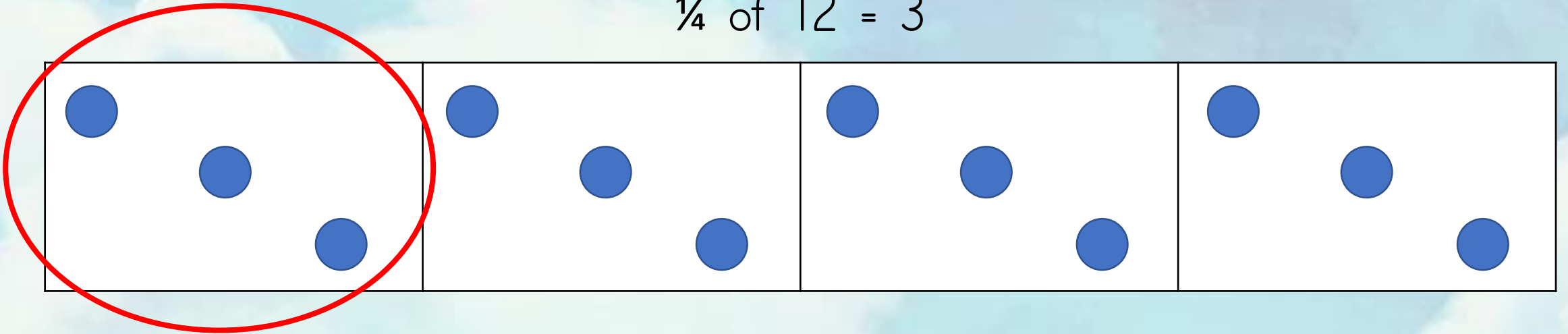


Half of 46 =



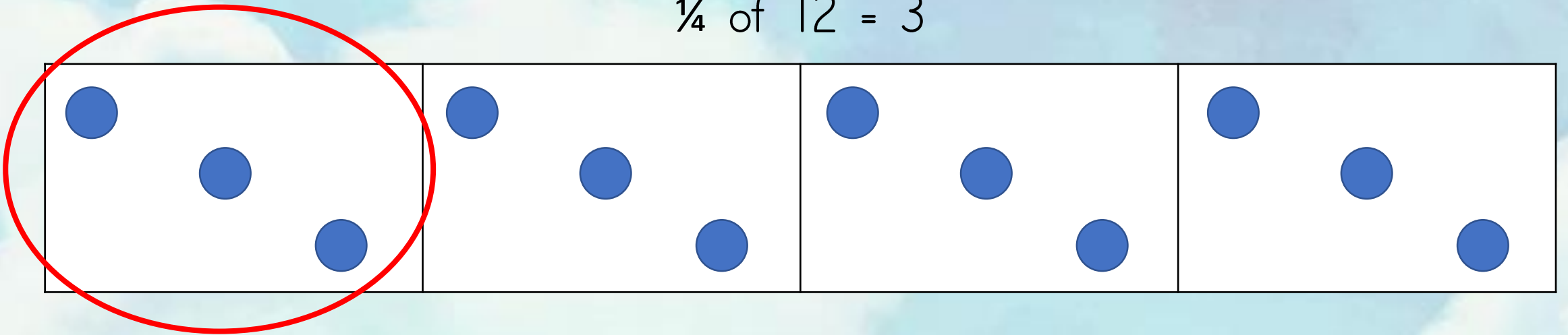
Calculating Unit Fractions of Amounts

$$\frac{1}{4} \text{ of } 12 = 3$$

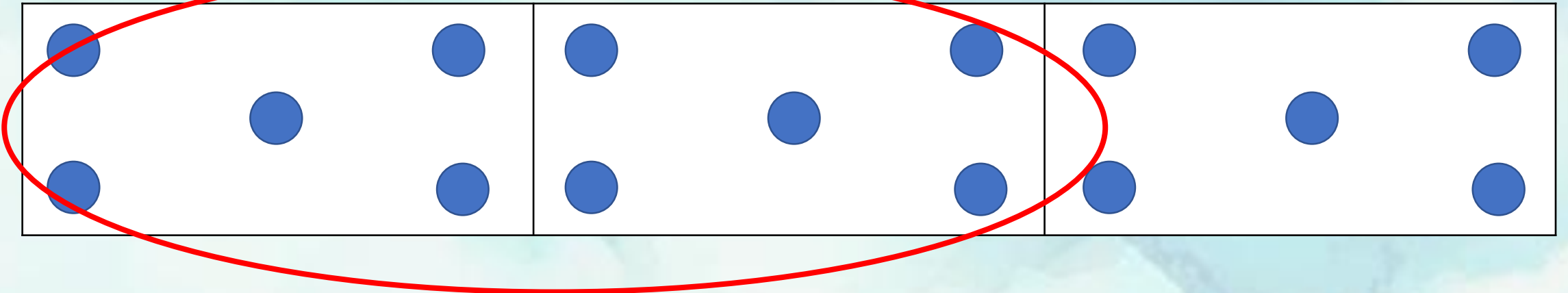


Calculating Unit Fractions of Amounts

$$\frac{1}{4} \text{ of } 12 = 3$$

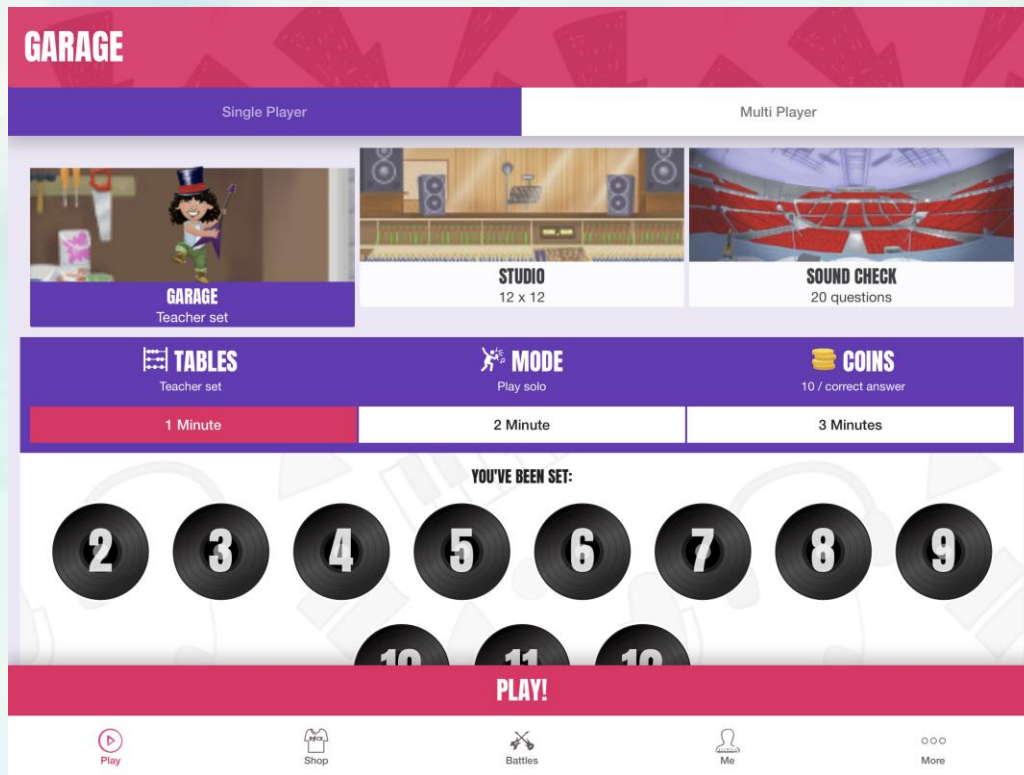


$$\frac{2}{3} \text{ of } 15 = 10$$



How can you help at home?

- Times Table Rockstars and Numbots is an excellent resources to support Maths learning at home



- Pupils must play games in the 'Garage' (The 'Studio' is every times table and is unsuitable for Y2 at this stage.)
- Teachers set the times tables for their classes.
- If you think your child is finding it too easy, let your child's teacher know.
- Children start with 10 times tables, then 2, 5 and 3.

If you click 'Me' and 'My Stats' at the bottom, you can see in green, orange or red, which facts your child is finding tricky. The 'greener' the fact, the quicker the child's recall.

My Account

My Stats

Charts

	<div>Grouped</div> <div>Basic</div>										
	2	5	10	3	4	8	6	7	9	11	12
2	2 × 2	2 × 5	2 × 10	2 × 3	2 × 4	2 × 8	2 × 6	2 × 7	2 × 9	2 × 11	2 × 12
5	5 × 2	5 × 5	5 × 10	5 × 3	5 × 4	5 × 8	5 × 6	5 × 7	5 × 9	5 × 11	5 × 12
10	10 × 2	10 × 5	10 × 10	10 × 3	10 × 4	10 × 8	10 × 6	10 × 7	10 × 9	10 × 11	10 × 12
3	3 × 2	3 × 5	3 × 10	3 × 3	3 × 4	3 × 8	3 × 6	3 × 7	3 × 9	3 × 11	3 × 12
4	4 × 2	4 × 5	4 × 10	4 × 3	4 × 4	4 × 8	4 × 6	4 × 7	4 × 9	4 × 11	4 × 12
8	8 × 2	8 × 5	8 × 10	8 × 3	8 × 4	8 × 8	8 × 6	8 × 7	8 × 9	8 × 11	8 × 12
6	6 × 2	6 × 5	6 × 10	6 × 3	6 × 4	6 × 8	6 × 6	6 × 7	6 × 9	6 × 11	6 × 12
7	7 × 2	7 × 5	7 × 10	7 × 3	7 × 4	7 × 8	7 × 6	7 × 7	7 × 9	7 × 11	7 × 12
9	9 × 2	9 × 5	9 × 10	9 × 3	9 × 4	9 × 8	9 × 6	9 × 7	9 × 9	9 × 11	9 × 12
11	11 × 2	11 × 5	11 × 10	11 × 3	11 × 4	11 × 8	11 × 6	11 × 7	11 × 9	11 × 11	11 × 12
12	12 × 2	12 × 5	12 × 10	12 × 3	12 × 4	12 × 8	12 × 6	12 × 7	12 × 9	12 × 11	12 × 12

Play

Shop

Battles

Bands

Me

This child is just starting to learn the 10x table.
Higher numbers x 10 still need practicing.

My Account

My Stats

Charts

Grouped

Basic

	2	5	10	3	4	8	6	7	9	11	12
2	2 × 2	2 × 5	2 × 10	2 × 3	2 × 4	2 × 8	2 × 6	2 × 7	2 × 9	2 × 11	2 × 12
5	5 × 2	5 × 5	5 × 10	5 × 3	5 × 4	5 × 8	5 × 6	5 × 7	5 × 9	5 × 11	5 × 12
10	10 × 2	10 × 5	10 × 10	10 × 3	10 × 4	10 × 8	10 × 6	10 × 7	10 × 9	10 × 11	10 × 12
3	3 × 2	3 × 5	3 × 10	3 × 3	3 × 4	3 × 8	3 × 6	3 × 7	3 × 9	3 × 11	3 × 12
4	4 × 2	4 × 5	4 × 10	4 × 3	4 × 4	4 × 8	4 × 6	4 × 7	4 × 9	4 × 11	4 × 12
8	8 × 2	8 × 5	8 × 10	8 × 3	8 × 4	8 × 8	8 × 6	8 × 7	8 × 9	8 × 11	8 × 12
6	6 × 2	6 × 5	6 × 10	6 × 3	6 × 4	6 × 8	6 × 6	6 × 7	6 × 9	6 × 11	6 × 12
7	7 × 2	7 × 5	7 × 10	7 × 3	7 × 4	7 × 8	7 × 6	7 × 7	7 × 9	7 × 11	7 × 12
9	9 × 2	9 × 5	9 × 10	9 × 3	9 × 4	9 × 8	9 × 6	9 × 7	9 × 9	9 × 11	9 × 12
11	11 × 2	11 × 5	11 × 10	11 × 3	11 × 4	11 × 8	11 × 6	11 × 7	11 × 9	11 × 11	11 × 12
12	12 × 2	12 × 5	12 × 10	12 × 3	12 × 4	12 × 8	12 × 6	12 × 7	12 × 9	12 × 11	12 × 12

Play

Shop

Battles

Me

More

This Y4 child is green as recall is mostly under five seconds, apart from their 12x table and 6x9 being a weaker fact.

How can you help at home?

- Playing games involving numbers and maths concepts is the best way to help with maths at home.
- Simple things like board games are good for practicing mental addition (dice) .
- This document was sent home in Term 1 and can be found on the website.

KS1 - Practical Maths

We have collected a number of practical maths activities for you to work on with your child at home. This is not a finite list and the ideas can be altered for a number of different topics as you see fit.



Resources that may be useful for these activities:

- bowls/muffin tray/cups or something similar
- counters/buttons or something similar
- a set of playing cards
- Lego
- coins
- paper
- dice
- chalk
- playdough
- sticks/spaghetti/lollipop sticks

Many of these activities can be completed without the above if necessary.

Thank you for coming.

Any questions?

