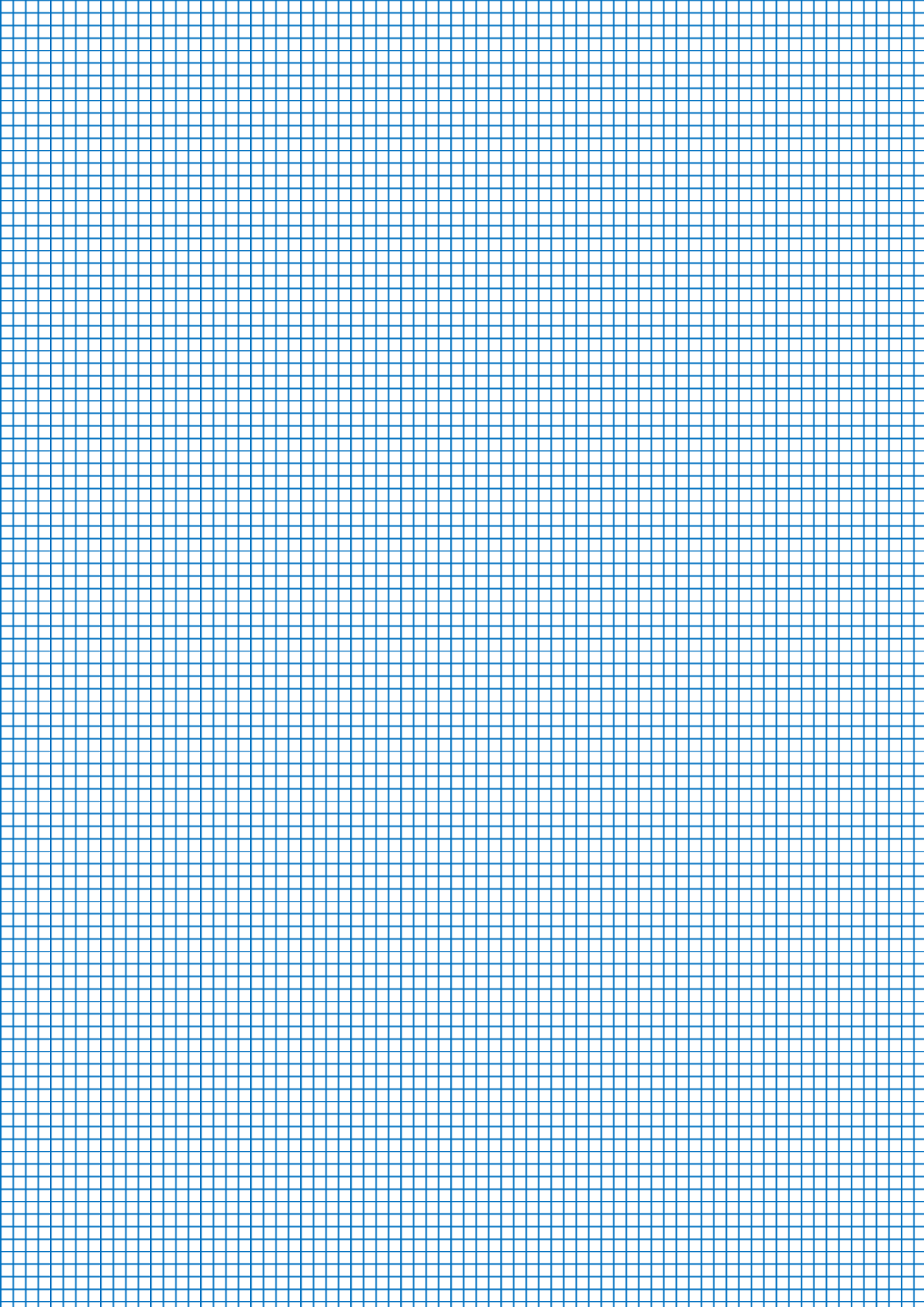


# RAF Benson Community Primary School

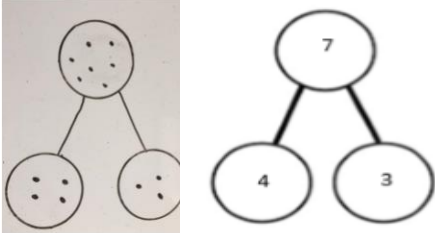


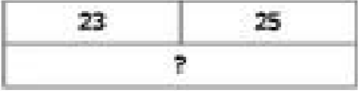
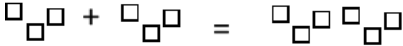
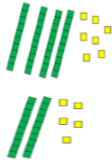
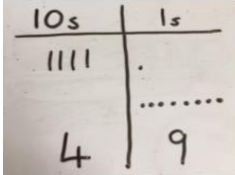
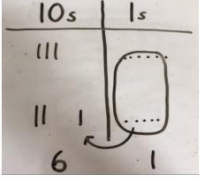




# ADDITION

**Children in Year 2 need to be able to:**

- recall and use addition facts to 20 and use related facts up to 100
- add numbers using objects, pictorial representations as well as mentally
- show that addition of 2 numbers can be done in any order
- use the relationship between addition and subtraction to check calculations and solve missing number problems

| STRATEGIES  | EXAMPLES  |
|---|---|
| <p><b>Part, part, whole</b></p>   |  <p>Move part-part whole model into bar model and then the abstract number sentence.</p>  <p><b>4 + 3 =</b></p>   |
| <p><b>Bar model</b></p>   |  <p><math>3 + 4 = 7</math></p>  <p><math>23 + 25 = 48</math></p> <p>Link part-part-whole to bar model.</p>  |
| <p><b>Using known facts</b></p>   |  <p>Link facts together:</p> <p><math>3 + 3 = 6</math></p> <p><math>30 + 30 = 60</math></p> <p><math>300 + 300 = 600</math></p>  |
| <p><b>Adding 2-digit numbers to 1-digit, tens and 2-digit numbers</b></p> |    <p>Draw tens and ones.. Move on to regrouping ones as a ten.</p> |

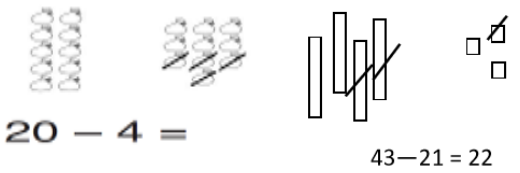
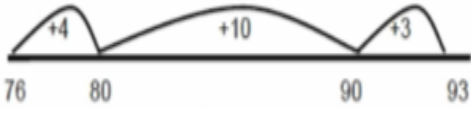
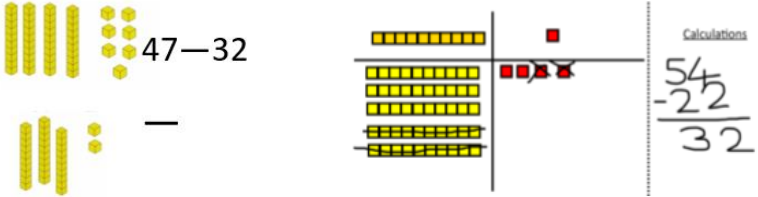
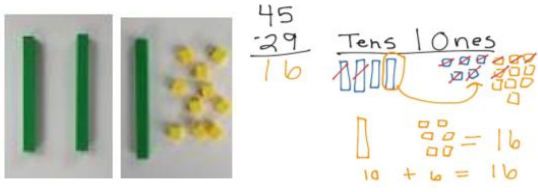
## KEY LANGUAGE

Add, equals, greater/more than, parts, whole, partition, bonds, tens, ones.

# SUBTRACTION

## Children in Year 2 need to be able to:

- recall and use subtraction facts to 20 and use related facts up to 100
- subtract numbers using objects, pictorial representations as well as mentally
- show that subtraction of 1 number from another cannot be done in any order
- use the relationship between addition and subtraction to check calculations and solve missing number problems

| STRATEGIES  | EXAMPLES  |
|---|---|
| <p><b>Partitioning to subtract without regrouping</b></p> |  <p>Children draw representations of dienes and cross off.</p>                        |
| <p><b>Make ten strategy</b></p>                           |  <p>Use a number line to count on to next ten and then the rest.</p>                 |
| <p><b>Column subtraction without regrouping</b></p>       |   |
| <p><b>Column subtraction with regrouping</b></p>          |  <p>Model the exchange of a ten for ten ones. Draw tens and ones and cross off.</p> |

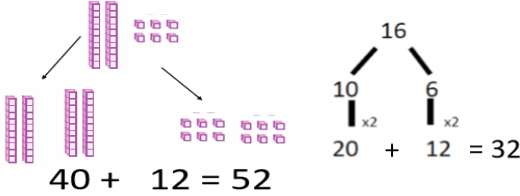
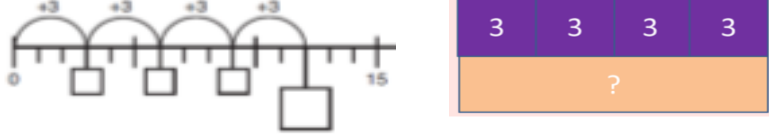
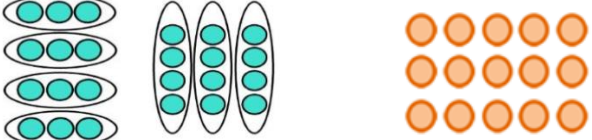
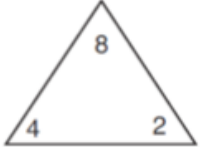
## KEY LANGUAGE

Subtract, take-away, minus, equals, less than, parts, whole, tens, ones.

# MULTIPLICATION

## Children in Year 2 need to be able to:

- recall and use multiplication facts for the 2, 5 and 10 times tables
- calculate statements for multiplication within the times tables and write them using the multiplication and equals signs
- show that multiplication of 2 numbers can be done in any order
- solve multiplication problems using resources, written and mental strategies

| STRATEGIES   | EXAMPLES  |
|--|---|
| <p><b>Doubling</b></p>   |  <p>Draw representations to show how to partition and double 2-digit numbers.</p>   |
| <p><b>Counting in multiples of 2, 3, 4, 5, 10 from 0 (repeated addition)</b></p> |  <p>Number lines and bar models can be used to show representation of counting in multiples.</p>   |
| <p><b>Multiplication is commutative</b></p>                                      |  <p>Use representations or arrays to show different calculations and write multiplication sentences.</p> <p> <math>5 \times 3 = 15</math><br/> <math>3 \times 5 = 15</math> </p>  |
| <p><b>Using the inverse (to be taught alongside division)</b></p>                |  <p>Show all related number sentences.</p> <p> <math>\square \times \square = \square</math>      <math>2 \times 4 = 8</math><br/> <math>\square \times \square = \square</math>      <math>4 \times 2 = 8</math><br/> <math>\square \div \square = \square</math>      <math>8 \div 2 = 4</math><br/> <math>\square \div \square = \square</math>      <math>8 \div 4 = 2</math> </p> |

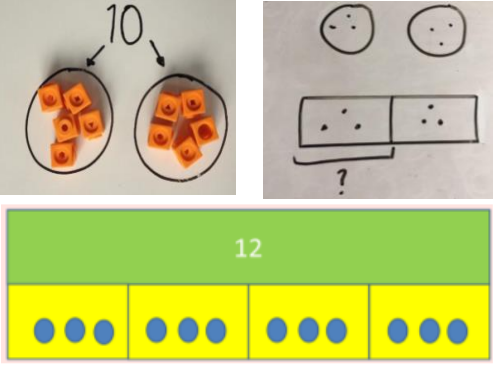
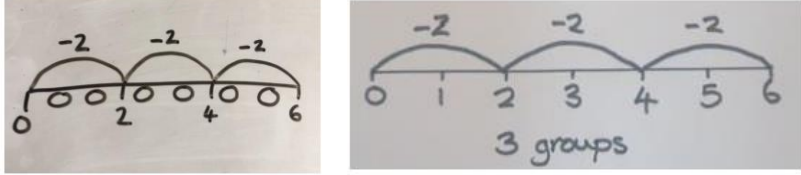
## KEY LANGUAGE

Multiply, times, repeated addition, groups of, multiple, equal, double, array, partition, inverse.

# DIVISION

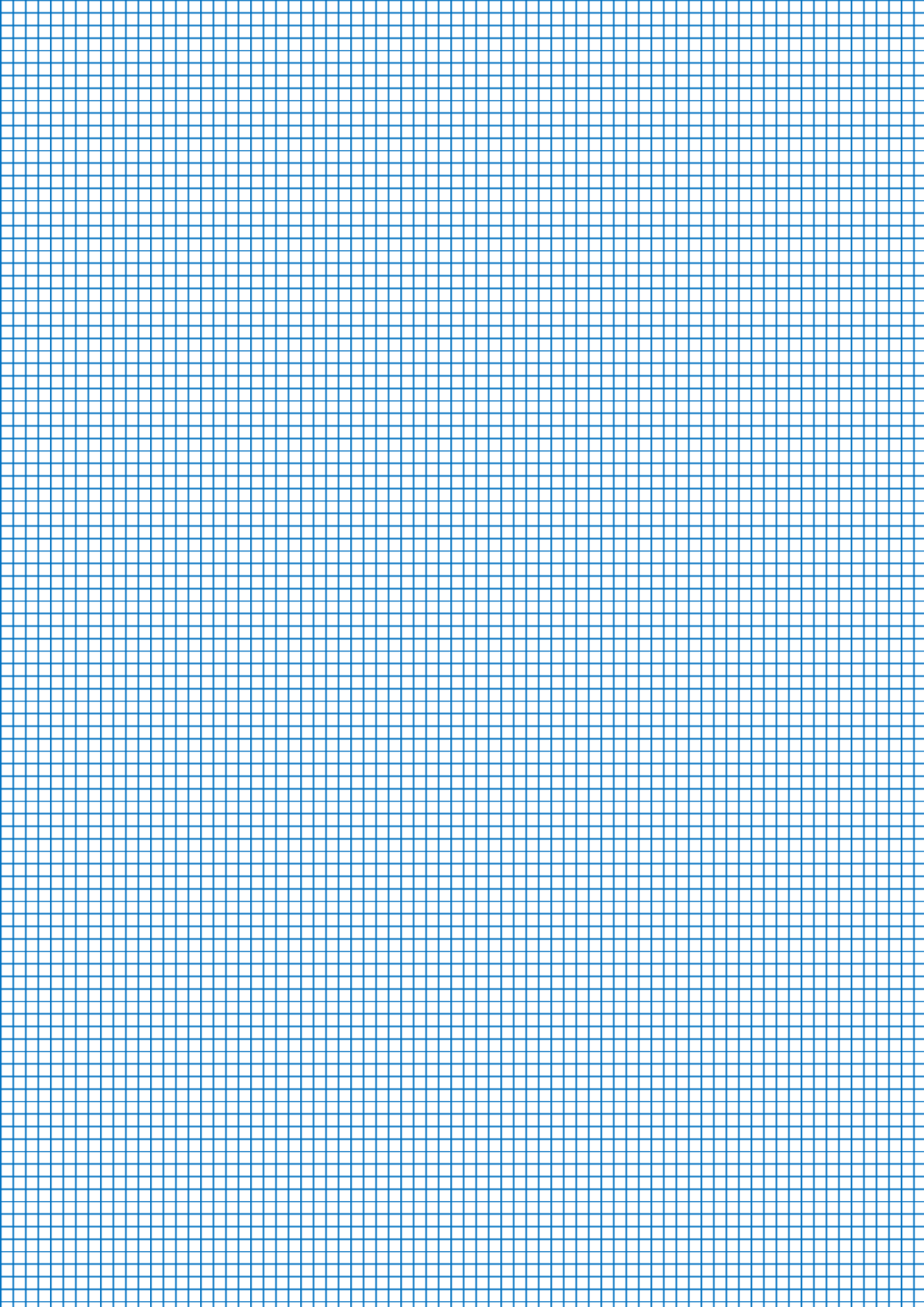
## Children in Year 2 need to be able to:

- recall and use division facts related to the 2, 5 and 10 times tables
- calculate statements for division within the times tables and write them using the division and equals signs
- show that division of 2 numbers cannot be done in any order
- solve division problems using resources, written and mental strategies

| STRATEGIES                  | EXAMPLES   |
|-----------------------------|--|
| <b>Division as sharing</b>  |  <p>Children share out objects equally and draw pictures to show this. They then use bar modelling to show and support understanding.</p> |
| <b>Repeated subtraction</b> |  <p>Draw a picture to show repeated subtraction and then use a number line to represent the equal groups that have been subtracted</p>   |

## KEY LANGUAGE

Divide, halving, sharing, groups of, equal, repeated subtraction.



# USEFUL WEBSITES

## **Times Tables:**

[www.multiplication.com/games/all-games](http://www.multiplication.com/games/all-games)

<http://gamequarium.com/multiplication>

## **All Maths:**

<https://www.mathplayground.com>

<https://login.mathletics.com>

<https://www.oxfordowl.co.uk/for-home/kids-activities/fun-maths-games-and-activities>

<https://www.topmarks.co.uk/maths-games>