Year 2
Maths Workshop

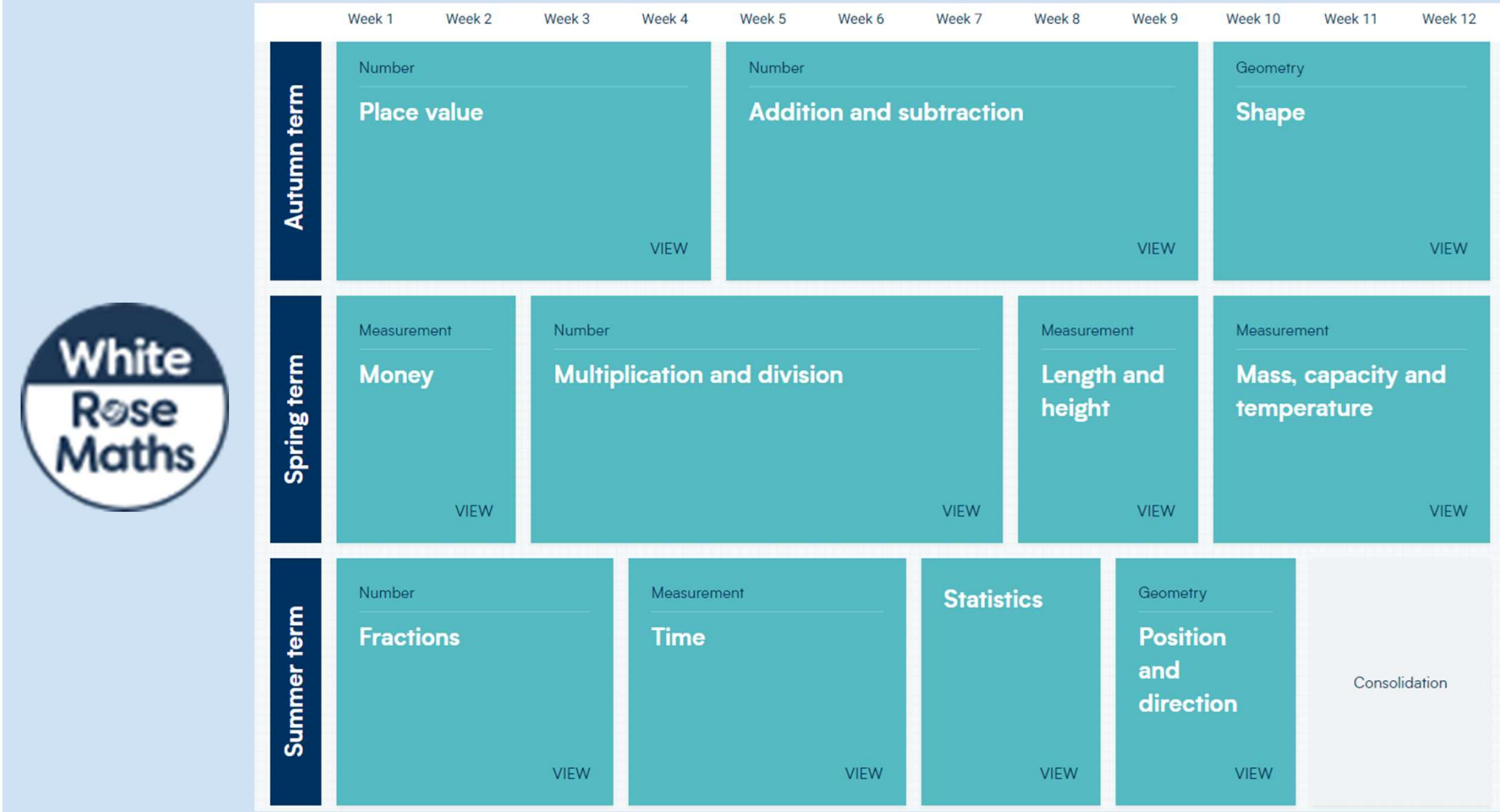
25.1.24

Welcome and aim of the session

- Overview of the expected standards for Number within the mathematics curriculum.
- Teaching methods and strategies employed at school for all 4 operations.
- Practical 'have a go' activities'.
- How you can support your children at home.
- Opportunities to answer questions.

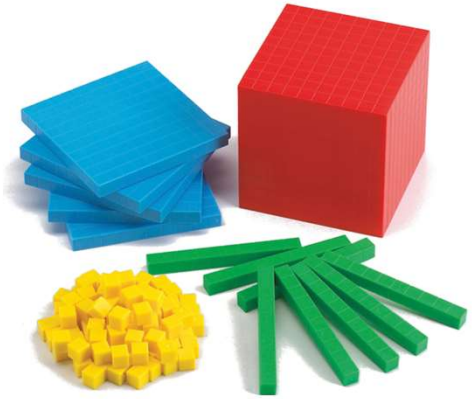
Not forgetting the other areas that are taught and assessed to be expected for Year 2…

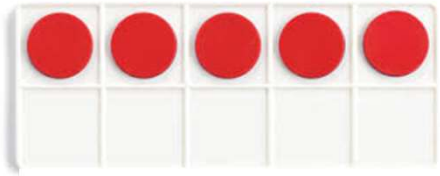
Fractions
Identify a quarter, third, half and two quarters and three quarters of a number or shape and know that all parts must be equal parts of the whole
Measures
Use different coins to make the same amounts
Read the time on a clock to the nearest 15 minutes
Properties of shape
Name some common 2D and 3D shapes from a group of shapes and describe some of their properties
Name and describe properties of 2D and 3D shapes, including number of sides, vertices, edges, faces and lines of symmetry

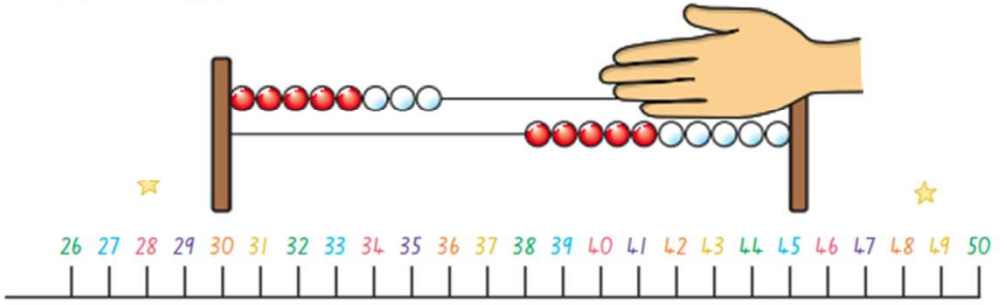

Week 1
Week 2
Week 3
Week 4
Week 5
Week 6
Week 7
Week 8
Week 9
Week 10
Week 11
Week 12
Autumn term
Number
Place value
VIEW
Number
Addition and subtraction
VIEW
Geometry
Shape
VIEW
Spring term
Measurement
Money
VIEW
Number
Multiplication and division
VIEW
Measurement
Length and height
VIEW
Measurement
Mass, capacity and temperature
VIEW
Summer term
Number
Fractions
VIEW
Measurement
Time
VIEW
Statistics
VIEW
Geometry
Position and direction
VIEW
Consolidation

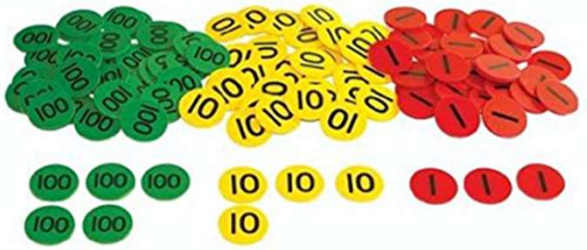
Concrete Apparatus

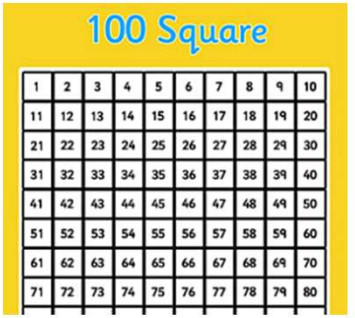
- Base 10
- Place Value Counters
- Tens Frames
- Hundred squares
- Number lines and number tracks
- Numicon
- Bead strings
- Rekenrek











Place value

Expected Standards

- Recognise the place value and digits of tens and ones.
- Partition any 2 digit numbers into tens and ones in different ways.

Greater Depth

- Use reasoning about numbers and relationships to solve more complex problems and explain their thinking

Place Value Vocabulary

represent

ones

whole

hundreds

part

partition

before

digit

after

greater than

many

few

fewer

fewest

least

equal to

the same as

odd

even

ten more

Let's have a go!

- Fastest fingers first (on a number square)
- Use the apparatus to show me .....
- I am thinking of a number ...
- Can you partition 57 in different ways?
- Use the digit cards 5, 3, 1, to make the lowest and highest number.

Examples of place value questions

Look at these numbers.

19	74	5	32

Write each number **once** to make these correct.

[ ] > [ ]

[ ] > [ ]

Desi has these coins.

How much does he have **altogether**?

[ ] p

Circle the correct number of **tens** and **ones** to make **eighty-two**.

10		10		10			1	1			1	1
	10		10		10		1		1			
10		10		10			10	1		1		1
	10				10		1		1			

Look at these digit cards.

7	9	6

(a) Use each card once to make the largest number.

[ ][ ][ ]

(b) Use each card once to make the smallest even number.

[ ][ ][ ]

Addition and Subtraction

Expected Standards

- Add and subtract two digit numbers and tens, where no regrouping is required
- Add and subtract any 2 digit numbers using an efficient method
- Recall all number bonds to and within 10 and use these to reason with and calculate number bonds to and within 20.

Greater Depth

- Solve unfamiliar word problems that involve more than one step. (This includes all four operations).

Addition and Subtraction Vocabulary

subtract *make* *double*

take away *sum*

half

minus *total* *equals*

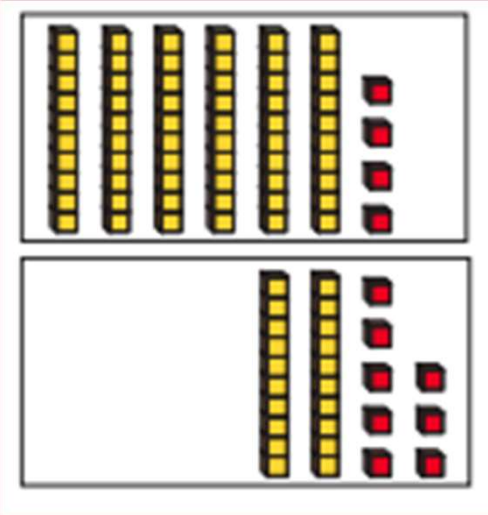
difference between *altogether* *How much less/more is … ?*

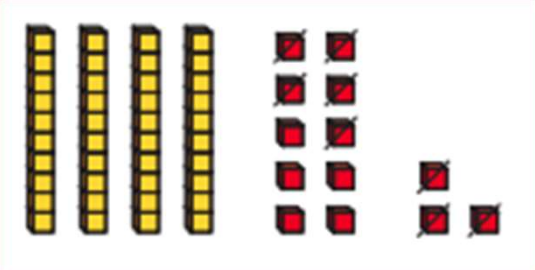
add *inverse*

How many more to make … ?

Partitioning Methods - see IWB display for modelling

- Using tens and ones (deines and counters)
- Drawing tens and ones
- Tens grids/part whole models
- Partitioning on a numberline
- Using number bond knowledge to the nearest 10





How could we use these methods to solve ……?

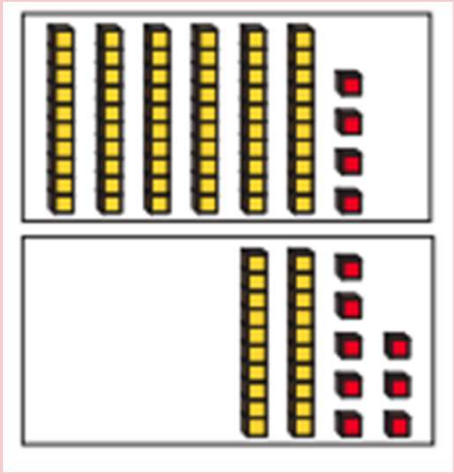
33 + 24 = 72 - 21 =
What about 32 - 13 = ?

<u>Mental Maths - fluency</u>

- 1 more less/10 more less
- doubles/near doubles
- Numberbonds to 10 and 20
- Near 10s (eg 82 - 19 =)

Column Addition

- Two digits add ones
- Two digits add 10s
- Two digits add two digits
- Regroup



	5	1
+	3	8

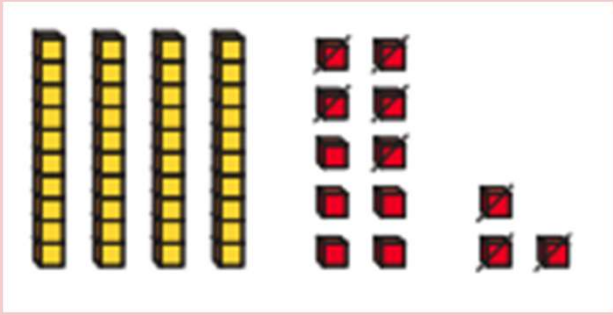
Tens	Ones

Find the sum of 35 and 26

- Partition both the numbers.
- Add together the ones. Have we got 10 ones?
- Exchange 10 ones for 1 ten.
- How many ones do we have?
- Add together the tens. How many do we have altogether?

Column Subtraction

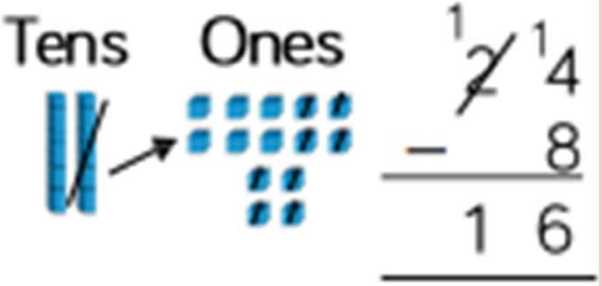
- Two digits subtract ones
- Two digits subtract 10s
- Two digits subtract two digits
- Exchange



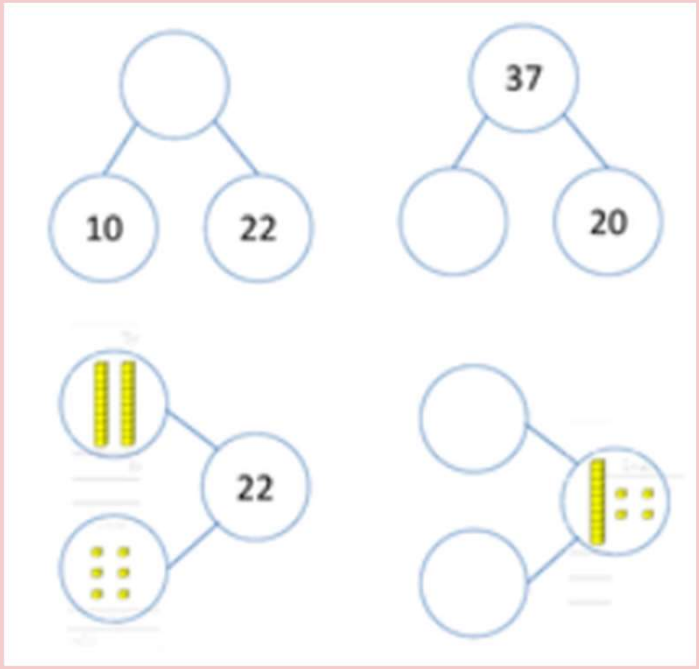
	7	8
−	2	5

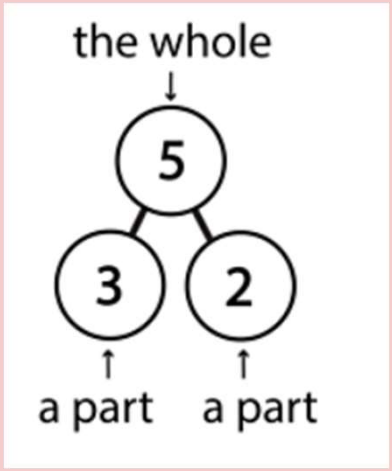
Tens	Ones
10 10 ~~10~~	~~1~~ ~~1~~ ~~1~~ 1 1 1 1

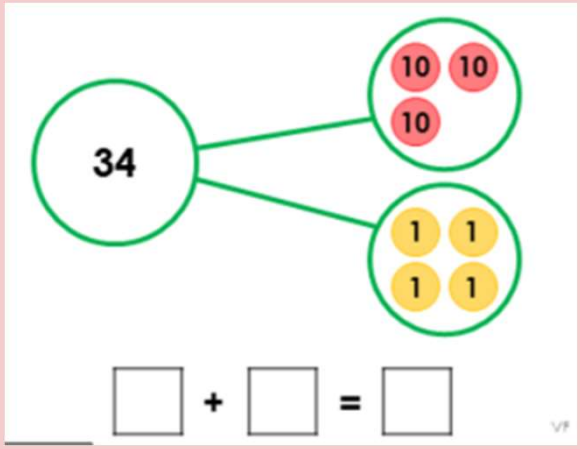
Subtract 8 from 24

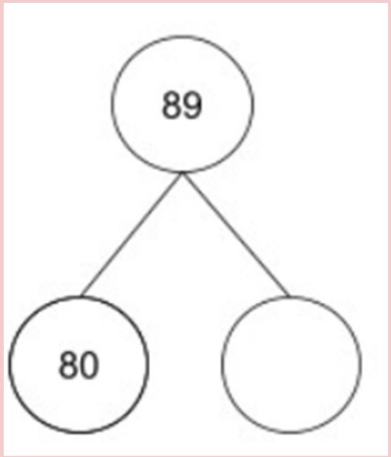


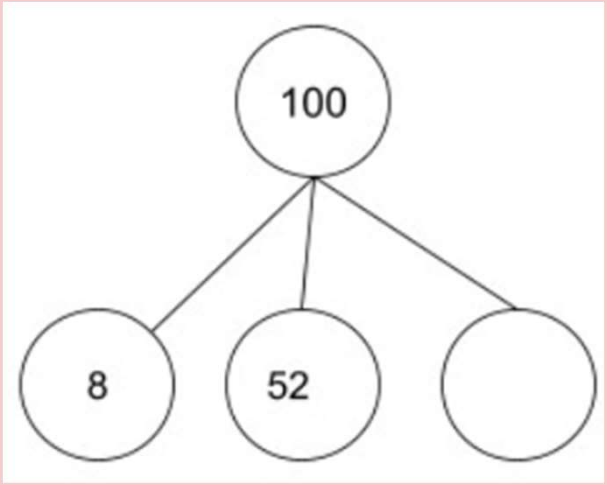
Part Whole Models





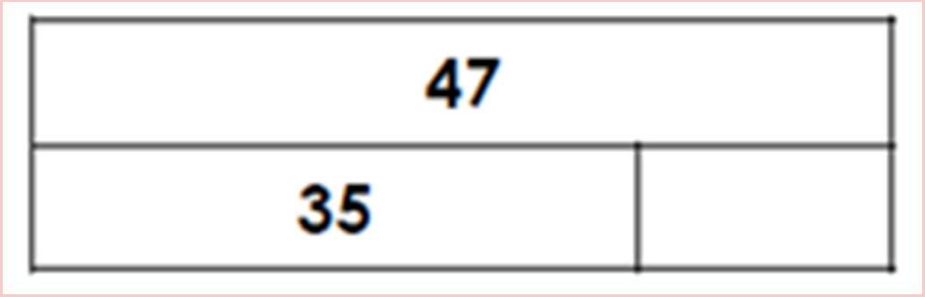


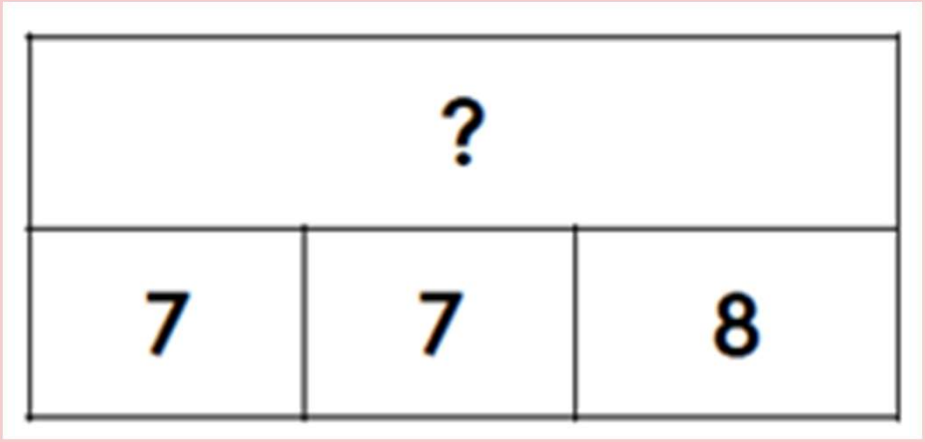




Bar Models for Addition and Subtraction

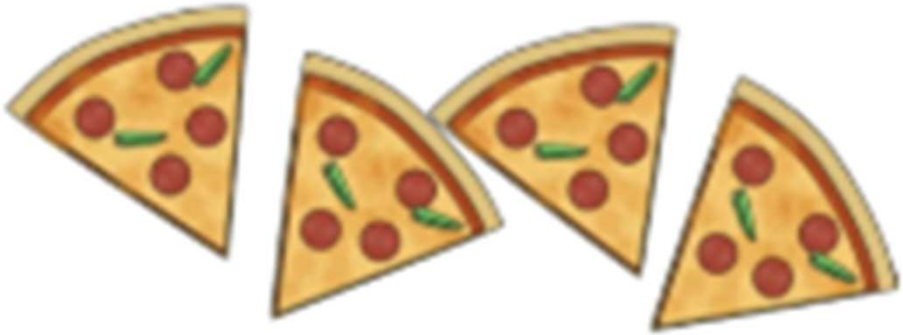
10 + 12 = 22
22 – 12 = 10





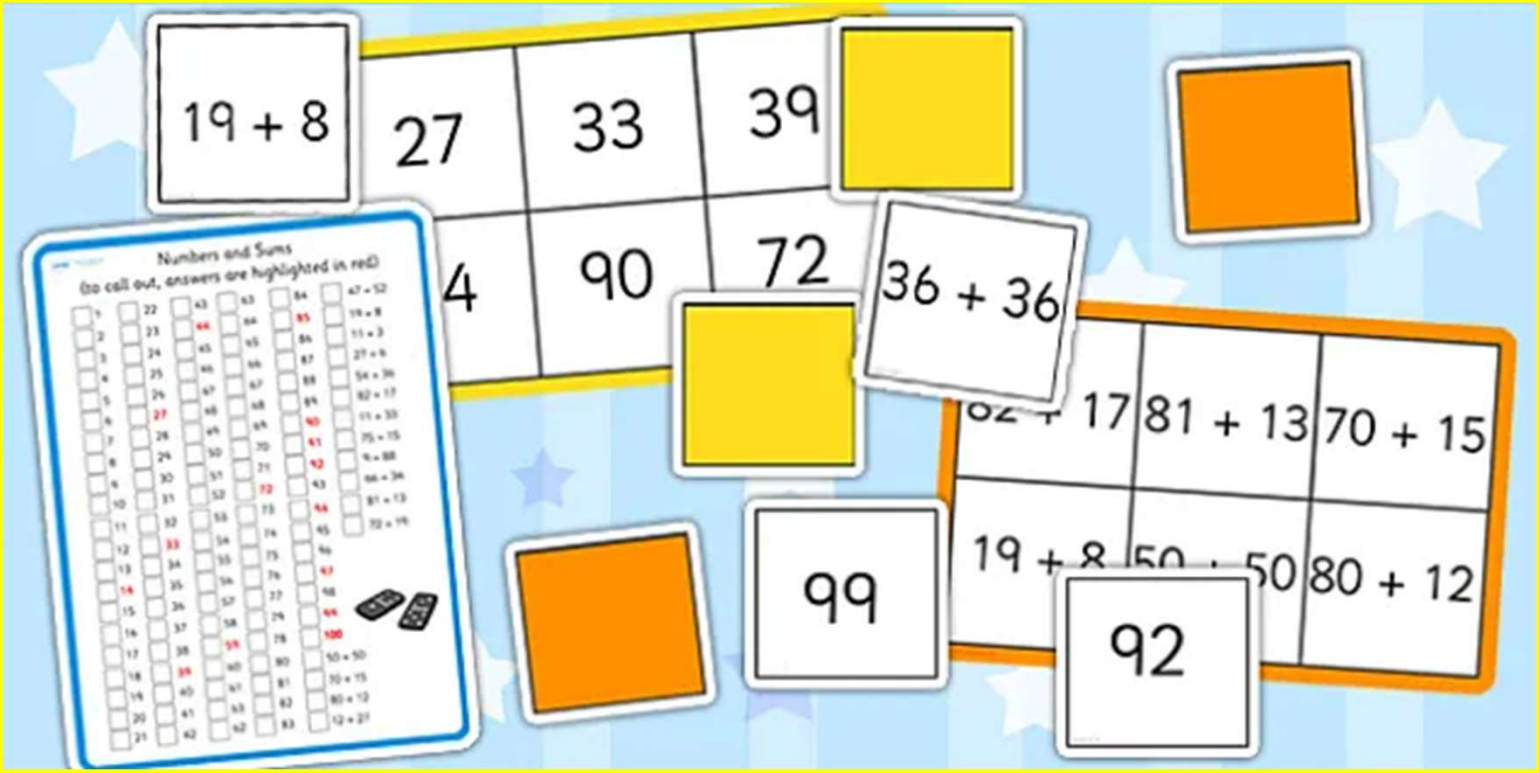
Addition and Subtraction Word Problems

If you have 67 slices of pizza and 15 slices are eaten, how many slices would you have left?



Let's have a go!

Addition to 100 BINGO!



Multiplication and Division

Expected Standards

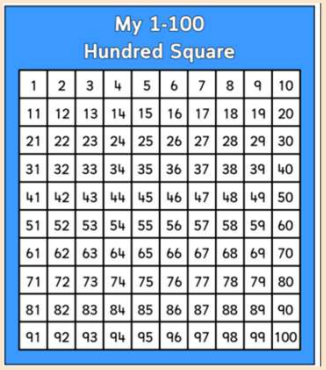
- Count in 2s, 5s and 10s to solve simple problems.
- Recall multiplication and division facts for 2s, 5s and 10s to solve simple problems.
- Read scales in divisions of 1s, 2s, 5s and 10s.

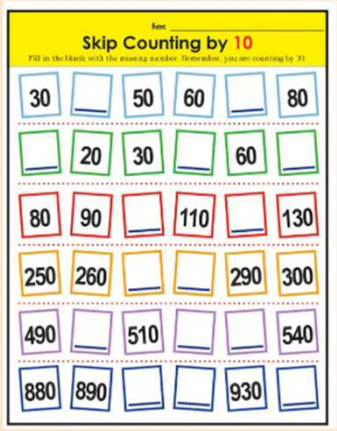
Greater Depth

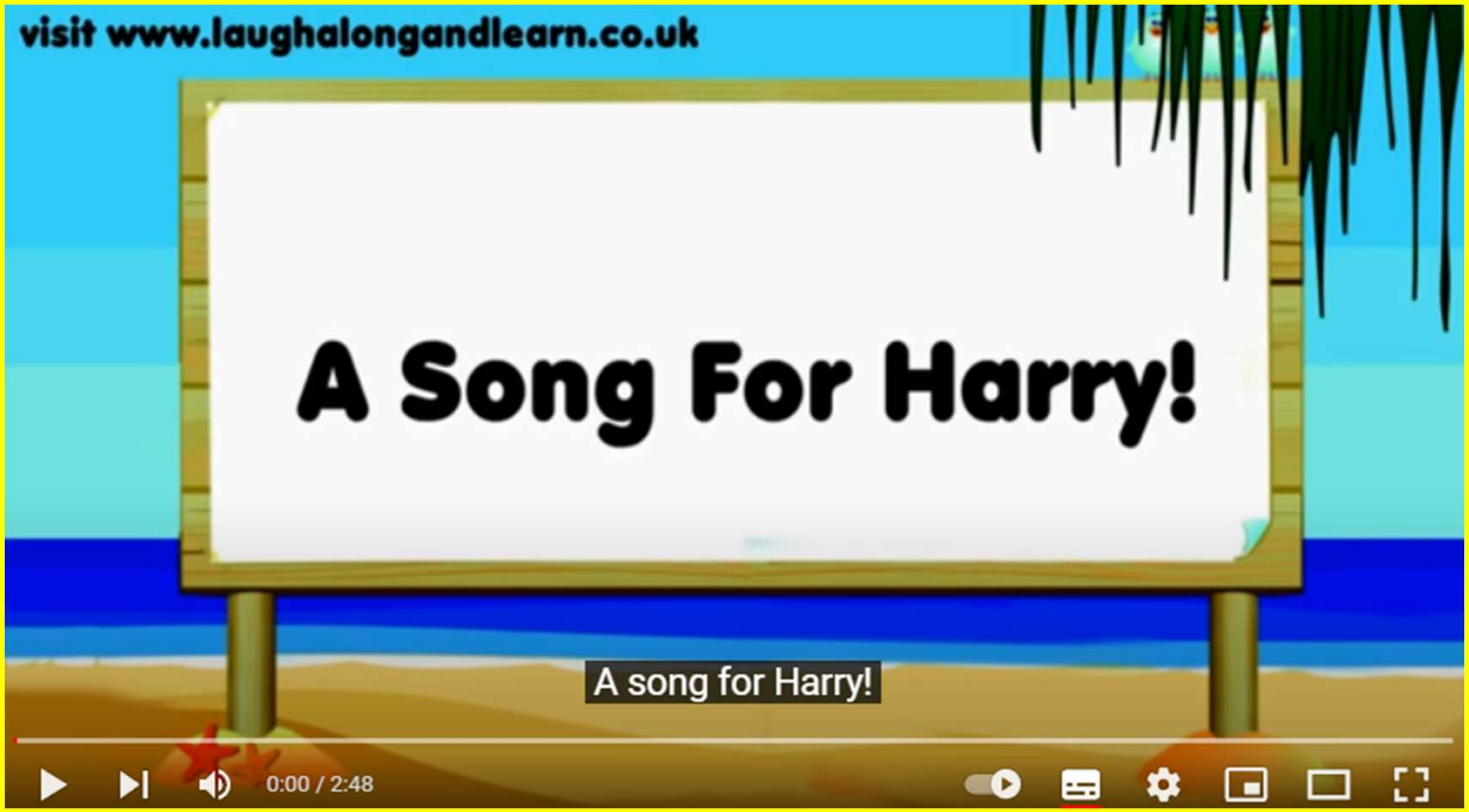
- Recall and use multiplication and division facts for 2, 5 and 10 and make deductions outside known multiplication facts.
- Solve unfamiliar word problems that involve more than one step. (This includes all four operations).

Rote Counting, Singing or Chanting

- Songs
- Games
- Skip counting
- Spotting patterns on a number square



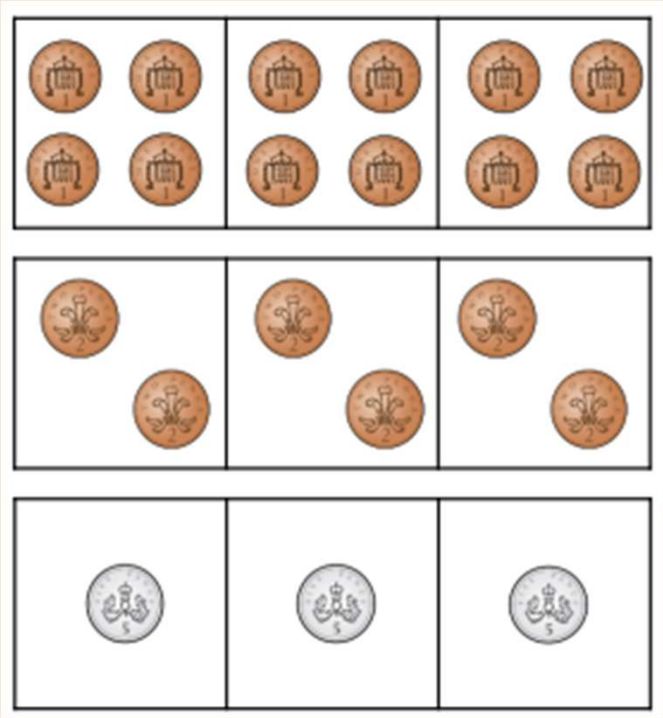


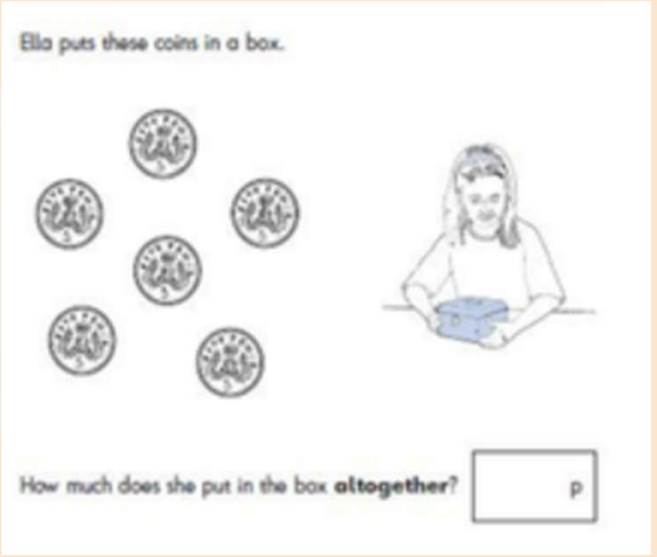


https://www.youtube.com/watch?v=dzVyBQ5uTbo

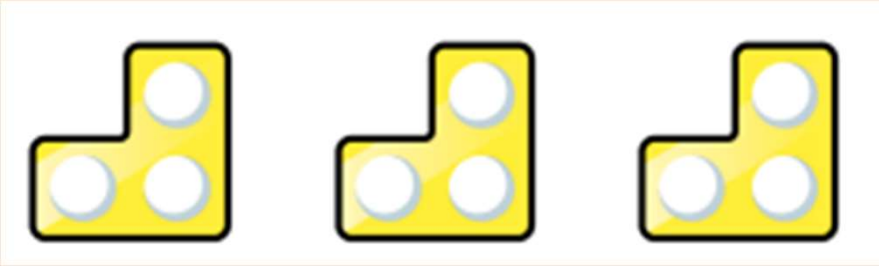
https://www.topmarks.co.uk/maths-games/7-11-years/multiplication-and-division

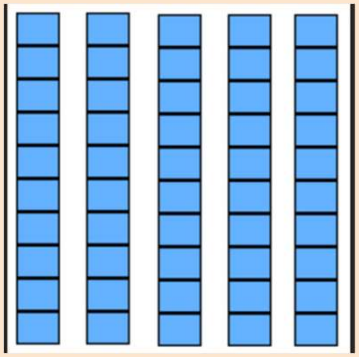
Visual representations - Counting money (10p, 5p, 2p, £5)

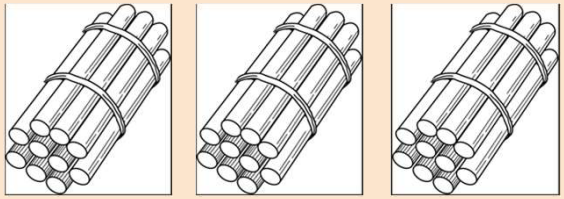




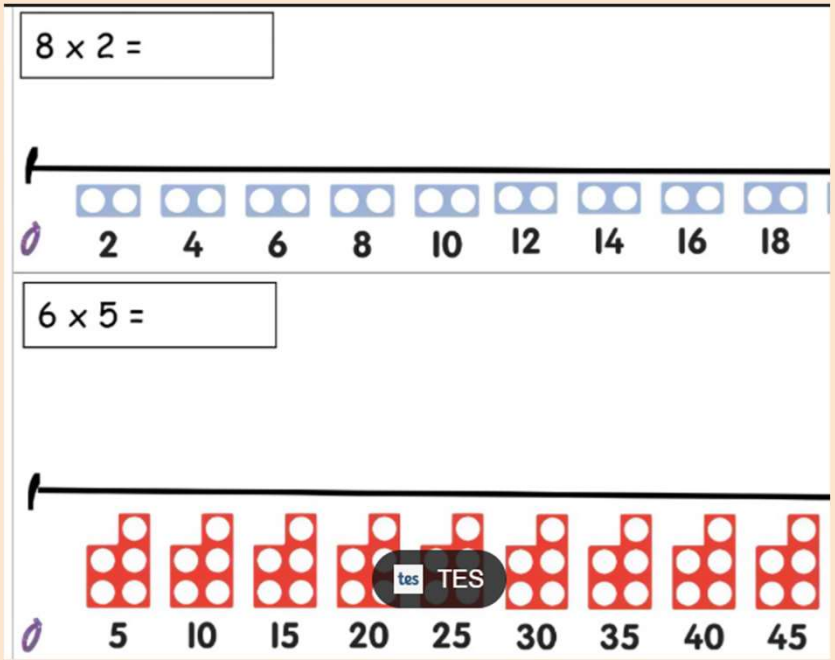
Visual representations - Repeated Addition (Numicon)



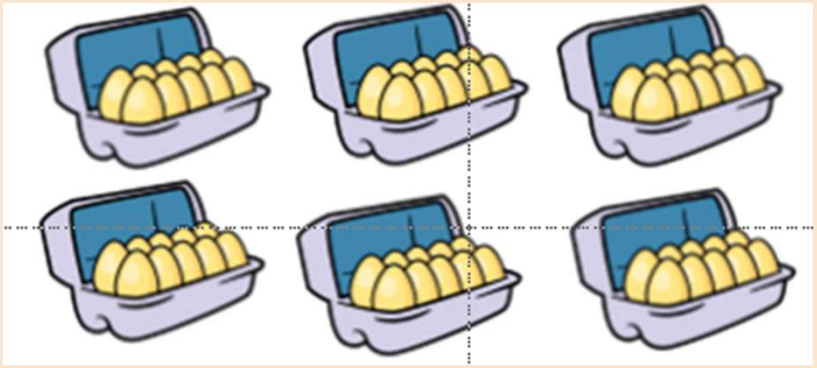


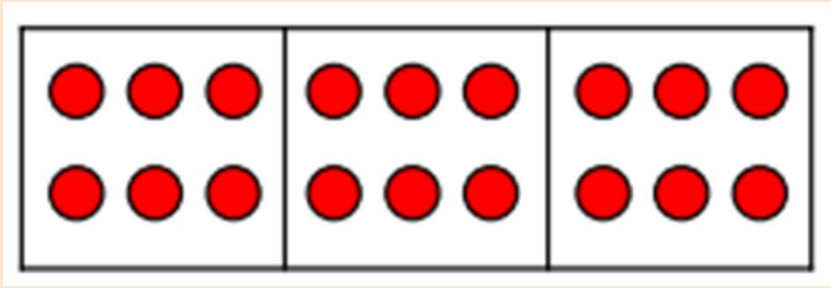


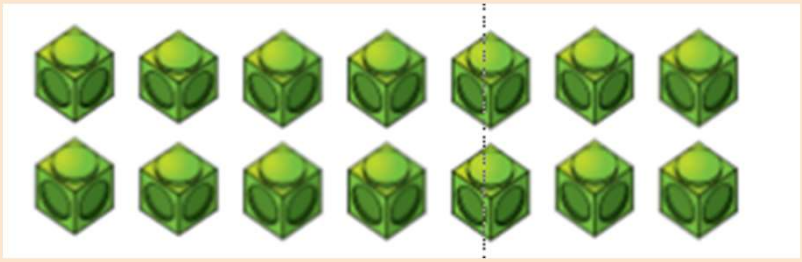
How could these visual representations be used to show division?



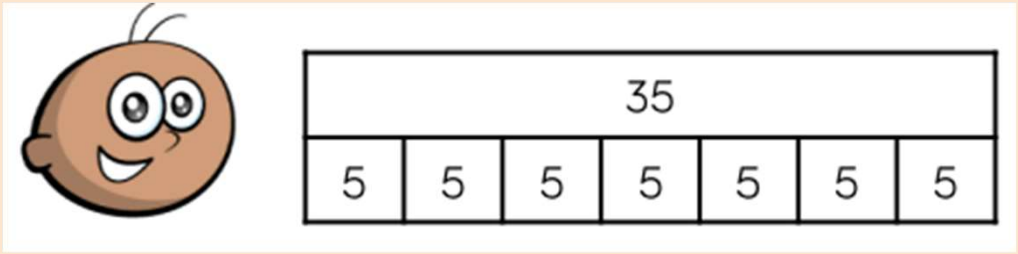
Pictures and Arrays

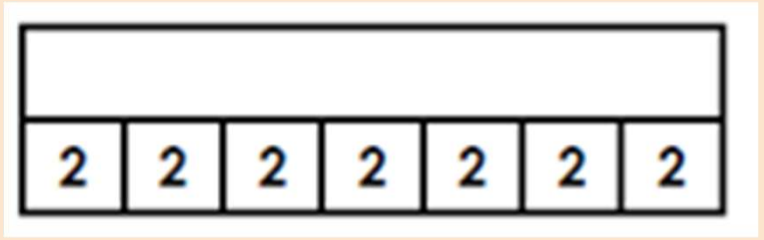


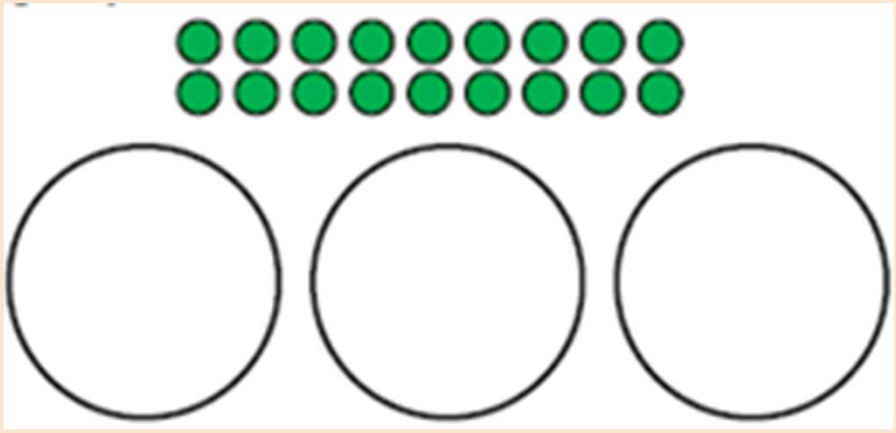


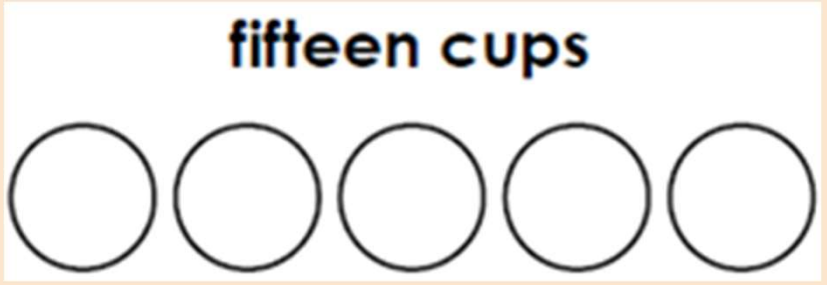


Bar Models/Sharing Hoops



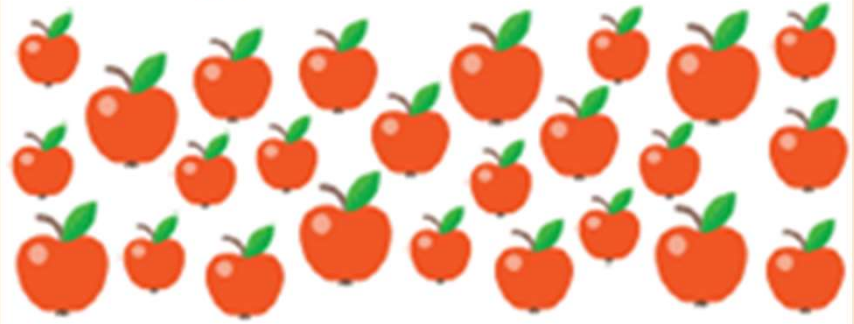






Grouping

8a. Mrs Gul buys 25 apples. Each group needs 5 apples.

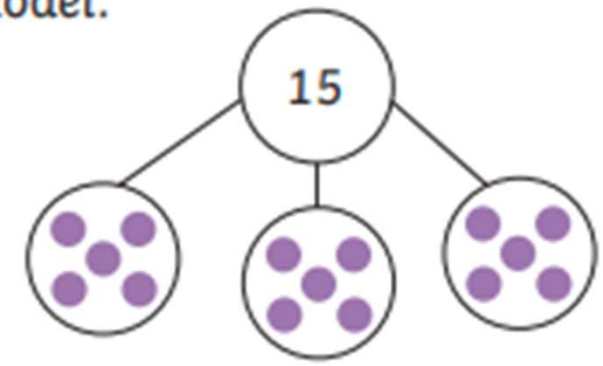


4a. Mr Lund buys 20 plums. Each group needs 5 plums.

9a. Draw twenty-four squares and sort them into equal groups of six.

Part Whole Models for Multiplication and Division

Circle the division calculations that match the model.

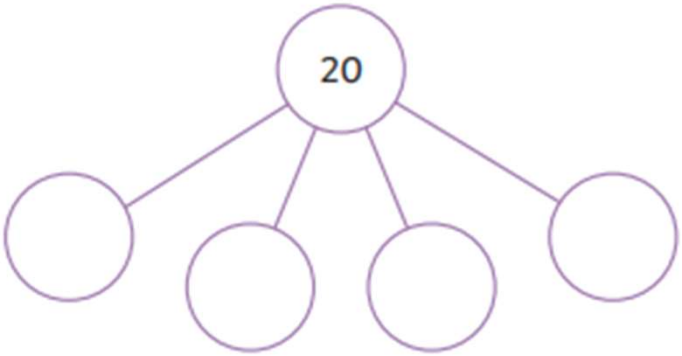


15 ÷ 2 = 5 5 ÷ 3 = 15

15 ÷ 5 = 3 15 ÷ 3 = 5

4. Use the part-whole model to solve the division calculation.

20 ÷ 4 = ☐



Word problems

Teddy has 20 pence in 2p coins.

He uses 7 of the coins to buy a drink.

How many 2p coins does he have left?

Numbots Game

What can you do at home?

- Numbots - Online maths app
- White rose maths - 1 minute maths app
- Time - nearest 15 minutes
- Money - different ways to make the same amount
- Online games - BBC bitesize, topmarks, maths frames.
- Practise mixed calculations
- Board games - orchard games, monopoly,
- Make maths fun! - small bursts

And finally…

We're often asked what's the one thing that will help to support my child in maths at school. So here it is....

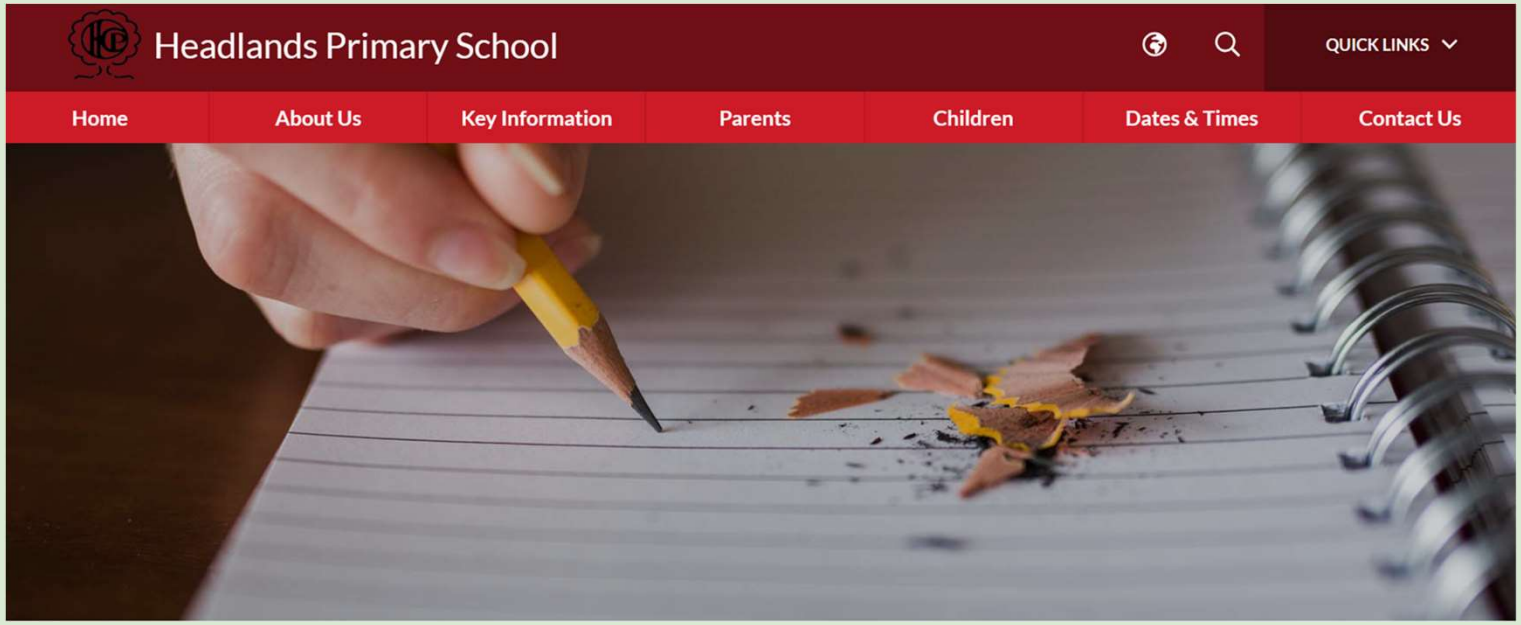
Be positive.
We can ALL do maths!

TOP TIP!

Y2 EXP Tell the time to the nearest 15 minutes on an analogue clock

Y2 GD Tell the time to the nearest 5 minutes on an analogue clock

There is plenty of useful information on our school website. Just go to…



Key information —> Curriculum —> Maths