Tuesday 4th February 2025

Infant Maths Workshop

A good mathematician……..

* Enjoys a challenge

* Can teach somebody else what they know

*Has a sharp recall of number facts

*Can use mathematical language

*Can calculate fluently

*Perseveres with a problem

*Reasons logically

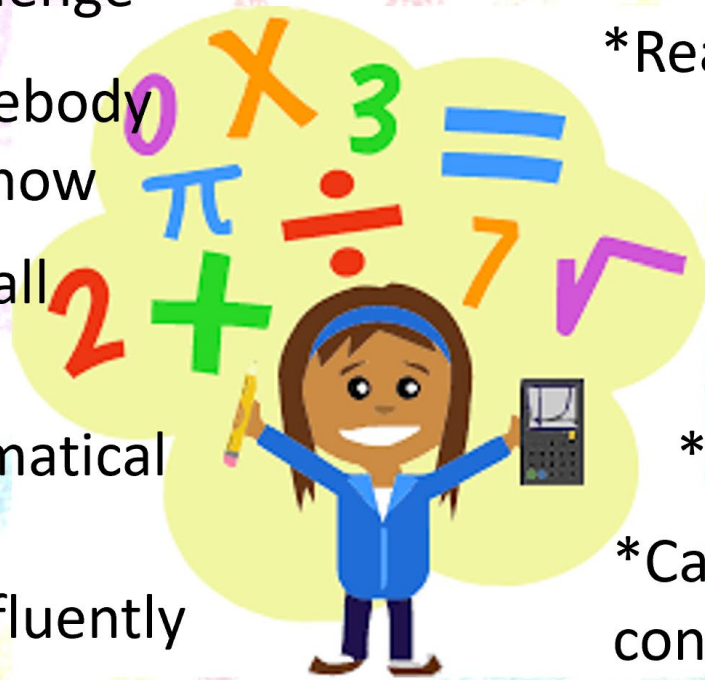
*Is willing to make mistakes

*Makes connections

*Asks questions

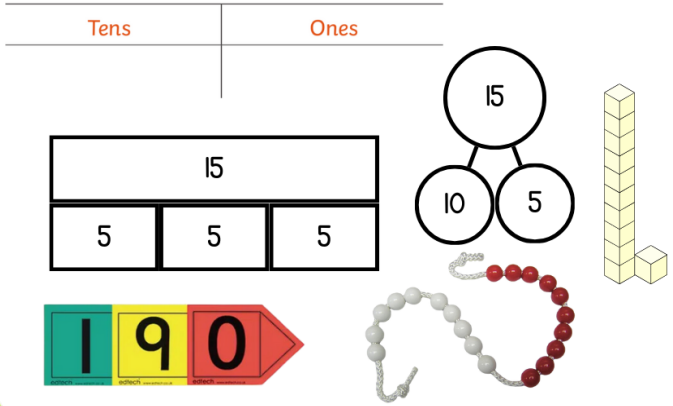
*Can see patterns and connections

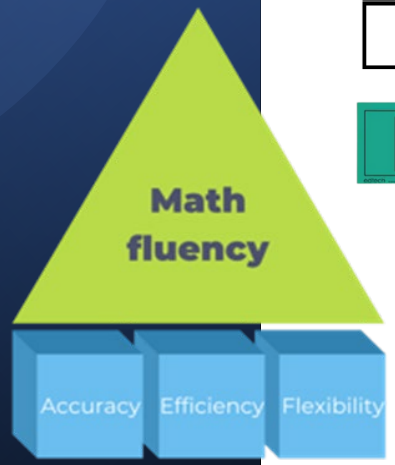
*Applies knowledge to other areas of maths/curriculum



Fluency

is about developing number sense and being able to choose the most appropriate method for the task at hand; to be able to apply a skill to multiple contexts.





Reasoning

is the ability to make logical links and connections which help you tackle a new maths problem. The skill of reasoning equips students not only with the ability to say how they will attempt to work out an answer, but why and how they can be sure it will work.

We use Stem Sentences to help develop good explanation skills

e.g. there are ___ equal groups of ___
So there are ___ altogether.

I know this because...

Problem solving is 'engaging in a task for which the solution method is not known in advance'.

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apple

4

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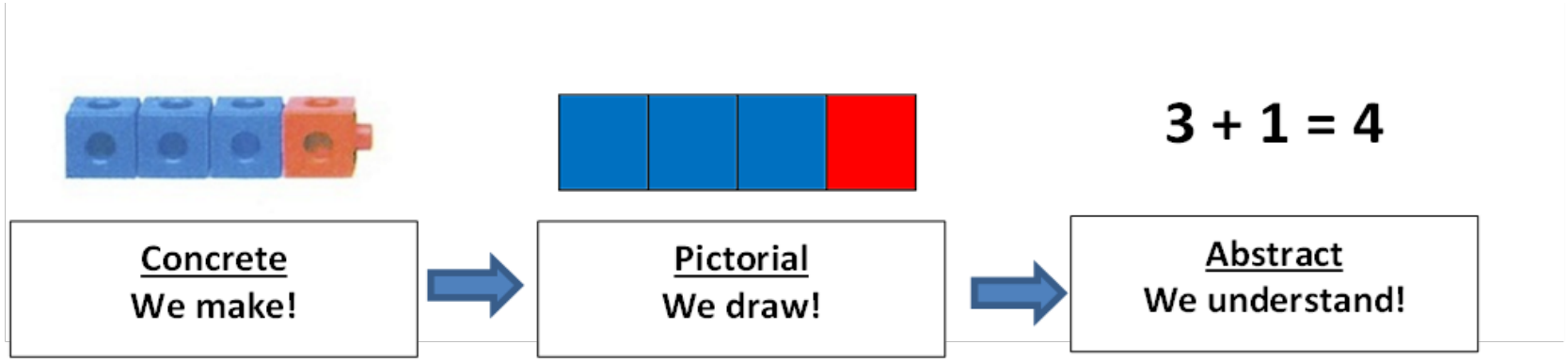

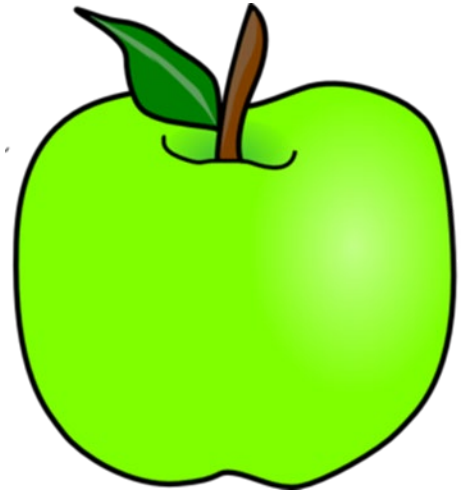

apple

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Maths in everyday life

- Maths is seen and used all the time when driving, shopping, building etc.
- However, Maths is changing in our daily lives.
  Contactless transactions
  Digital clocks

- For children to grasp and understand Maths, they need to explore the foundations.
  Play and work with practical money
  Understand the measurement of time in analogue form

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How can I help my child with Maths?

- Count your steps as you take a walk, Count in 1s, 2s, 5s and 10s.
- Give your child coins to practise counting money
- Give your child story problems to try and solve. Can they explain how they solved it? Prove it!
- Have children point out patterns and shapes they can see
- Let your child help you cook; cooking involves a lot of counting and measuring
- Show your child that Maths is in our everyday lives
- Use mathematical vocabulary, more than, less than

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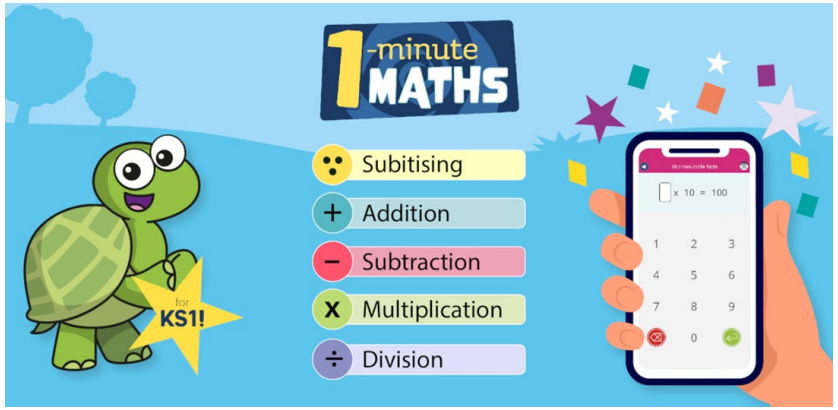
Resources

- Counting resources can be any objects!

Pasta, Lego, pens, cuddly toys
ANYTHING!



Reception

Reception

Numbers

Gradual number progression throughout the year

0-20 and beyond

Master the Curriculum	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	Getting To Know You		Match, sort and compare		Talk about measure and patterns		It's me 1,2,3		Circles and triangles	1,2,3,4,5		Shapes with 4 sides
Spring	Alive in 5		Mass and capacity	Growing 6,7,8		Length, height and time		Building 9 and 10		Building 9 and 10	Explore 3-D shapes	
Summer	To 20 and beyond		How many now?	Manipulate, compose and decompose		Sharing and grouping		Visualise, build and map			Make connections	Consolidation

Not just numbers!

Matching, sorting, comparing, grouping

Measuring and patterns: length, height, size, mass, capacity, time (day and night. today/tomorrow/yesterday, days of the week, sequencing events).

2D and 3D shapes: squares, rectangles, triangles, circles, cubes, cones, pyramids, cylinders, spheres.

Reception

Number – Areas of Focus

Find the number – recognise the numeral, pictorial representations

Subitise – the ability to instantly recognise the number of items in a group without needing to count.
"don't count, say the amount"



Represent – Explore and make different representations, match names to numerals and quantities, e.g.

Five

sorting representations of 4 and 5

One more – understanding that as you count forwards each number is one more than the previous number. Recognise how numbers increase in size when one more is added.

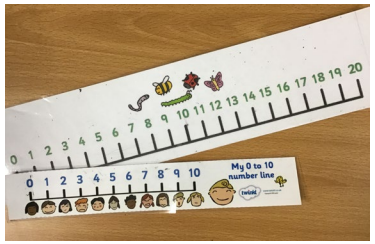
One less – understanding that as we count back each number is one less that the number before. The numbers get smaller because we are "taking away".

Composition – recognising all numbers are made up of smaller numbers "parts of the whole". Exploring partitioning whole numbers into 2 parts,
e.g. "2 is a part, 3 is a part, the whole is 5".

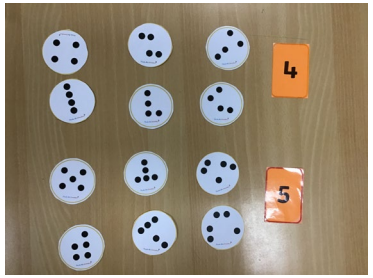
Reception

Common resources

Number cards
- Number recognition
- Ordering numbers

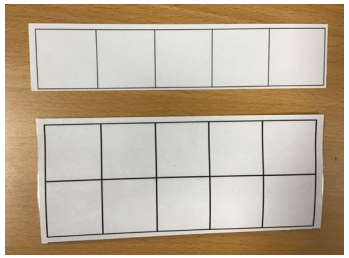


Numberlines
- Counting
- One more/less
- Number formation



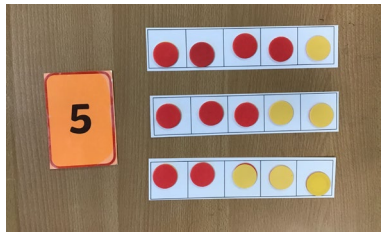
Dot plates
- Subitising
- Sorting, matching, grouping
- Counting
- Composition of numbers

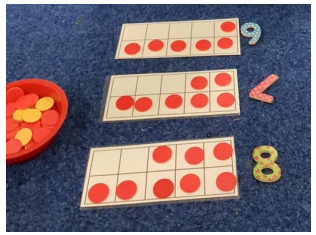
Picture cards
- Subitising
- Sorting, matching and grouping
- Counting

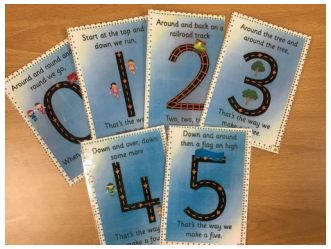


5 frames / 10 frames
- Counting
- Composition of numbers
- One more/less
- Adding/taking away

Double sided counters
- Counting
- Used with 5/10 frames







Number formation cards with rhymes
- Number formation

Reception

Typical lessons and activities – what it looks like in practice
A lesson about One More

Whole class

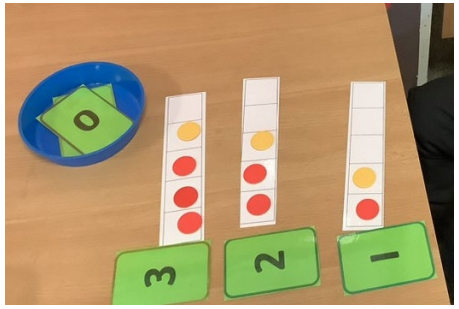
- What we will be learning
- New vocabulary
- Work through activities as a class
    - Introduce stem sentences,

  e.g. __ is a group, ___is a group, the whole is ___

↓

Group work or individual with adult support as needed

- Work through activities in small groups or individually
    - Support will vary according to individual child
    - Digging Deeper activities – problem solving…Why? True or False? Justify and explain.
    - Recorded in work books, on Tapestry or observation.



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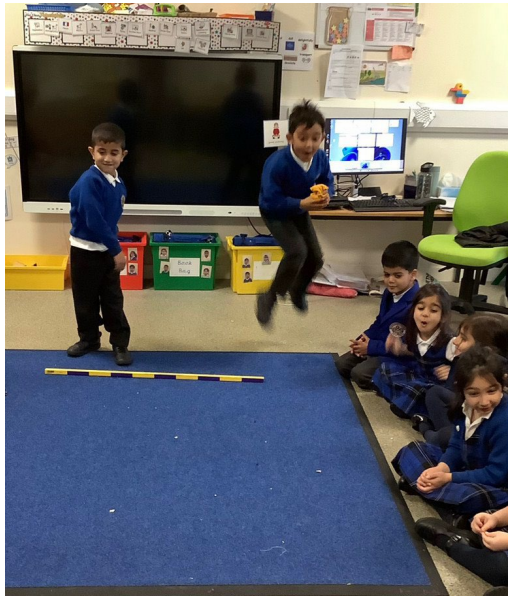
Continuous provision – child-led / independent

Reception

Composition

5

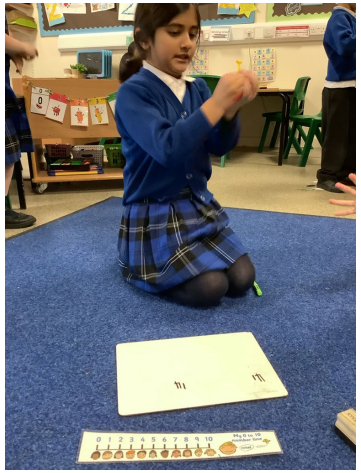


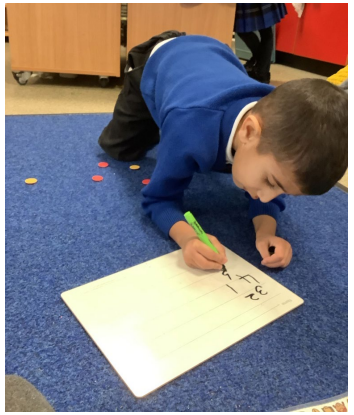
"2 is a part, 3 is a part, the whole is 5"

Reception

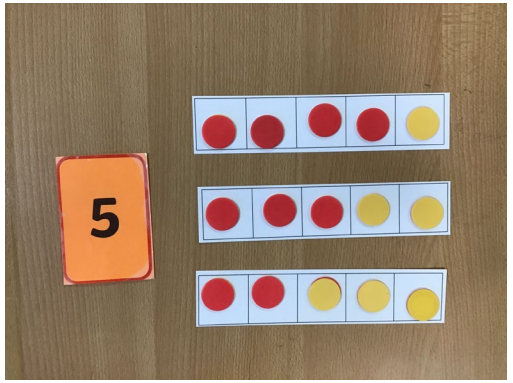
Composition

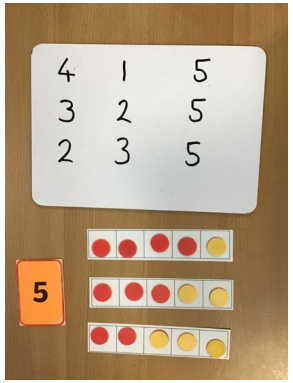
5

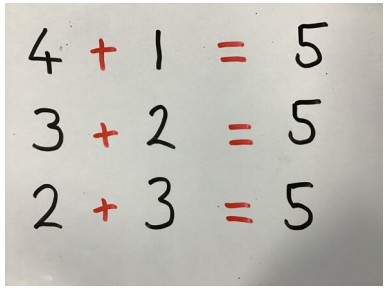


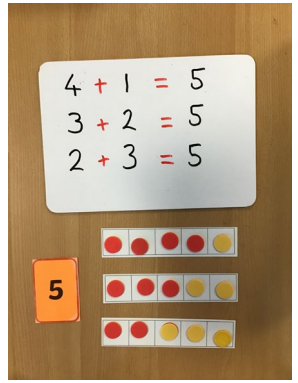


“2 is a part, 3 is a part, the whole is 5”









Reception

How can I help my child with Maths?

Lots of ideas

- Maths in everyday life
- Ideas to support at home – incorporate maths into daily life

Reception highlights

Tapestry

- Weekly posts covering what we are learning
- Key vocabulary
  - Incorporate this into your activities
- Any actions specific for your child
- Number formation – weekly number focus and rhymes

Mathletics

- Individual log ons
- Link to areas we are focused on in class

Year 1

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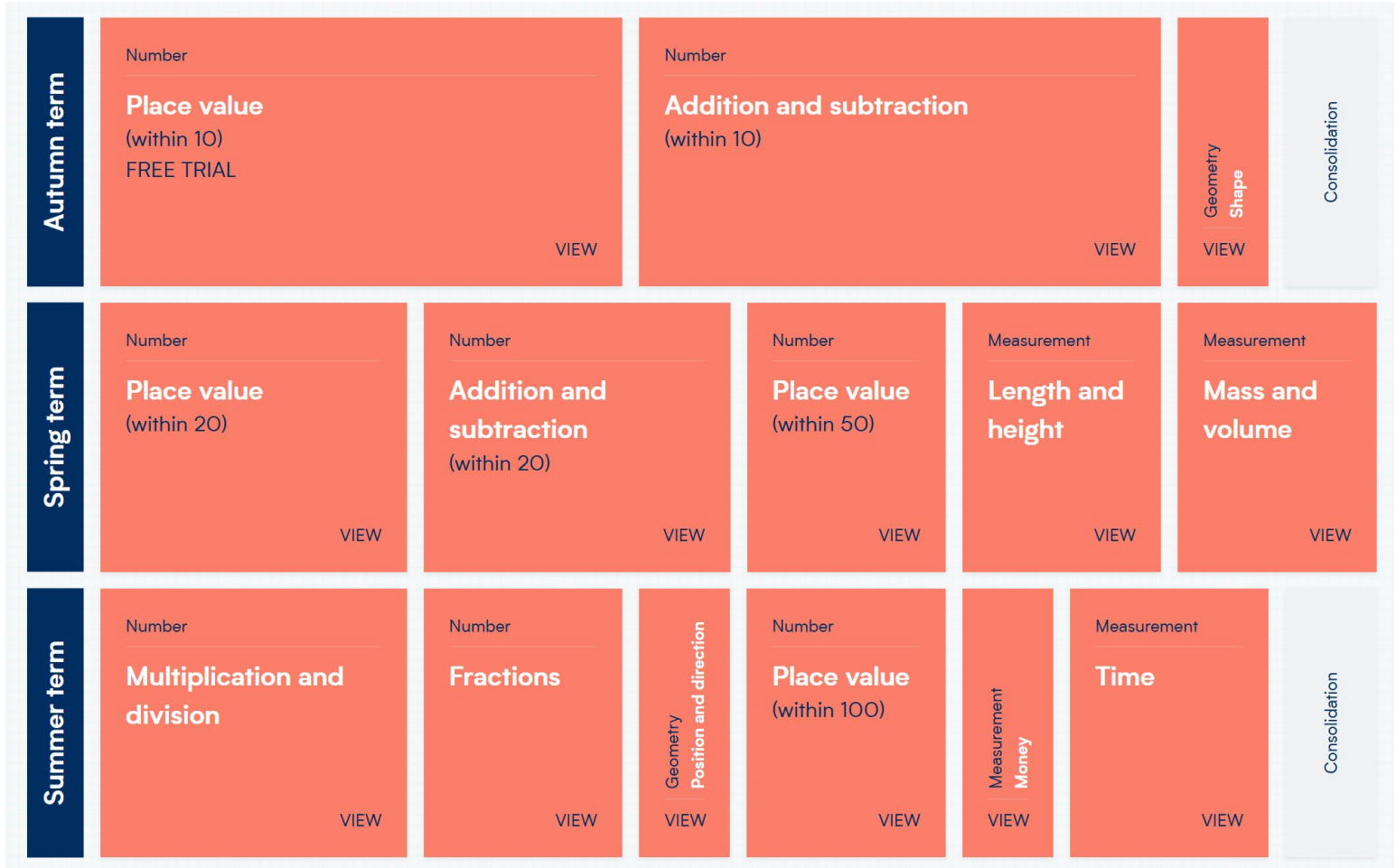
Year 1



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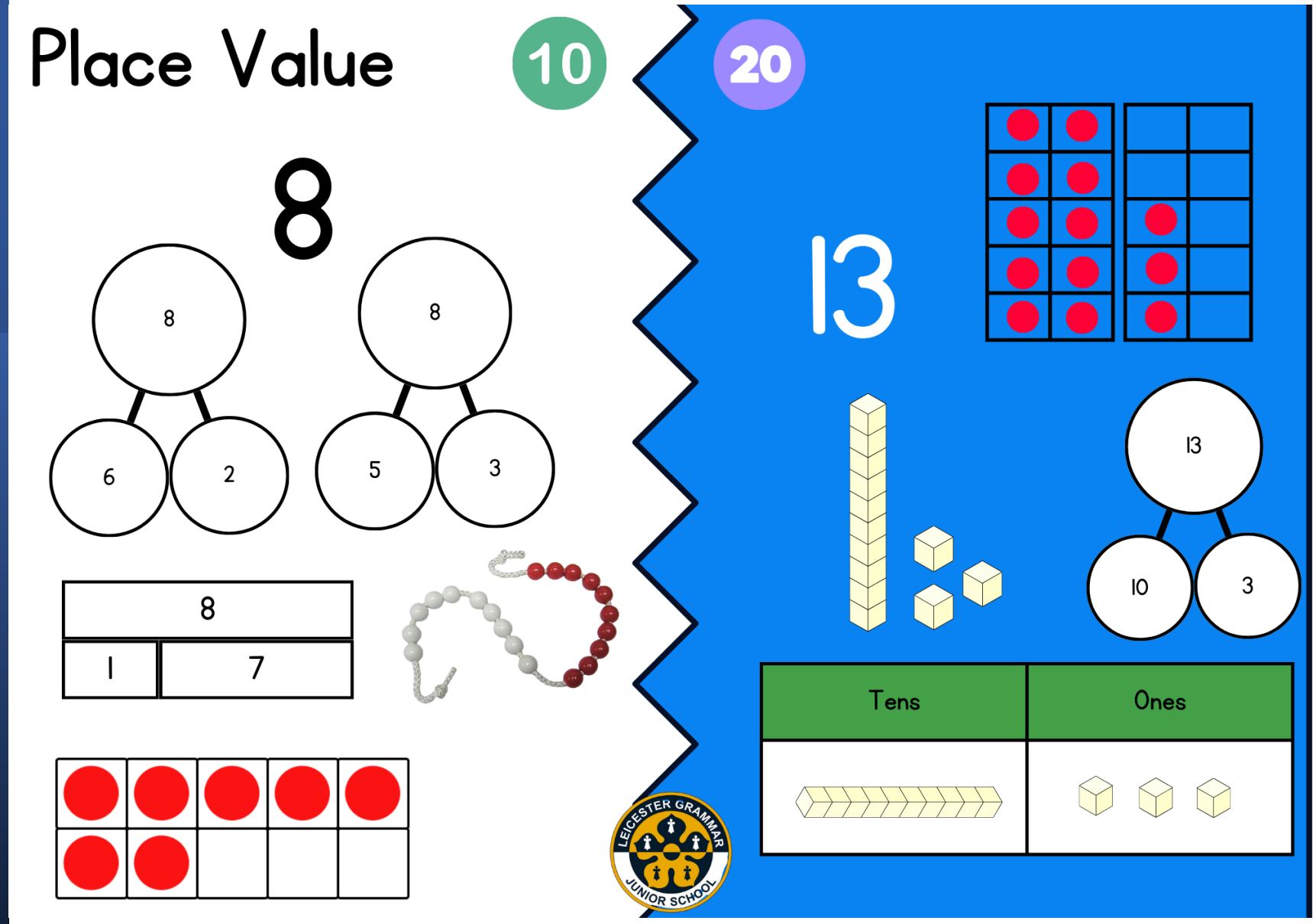
Year 1



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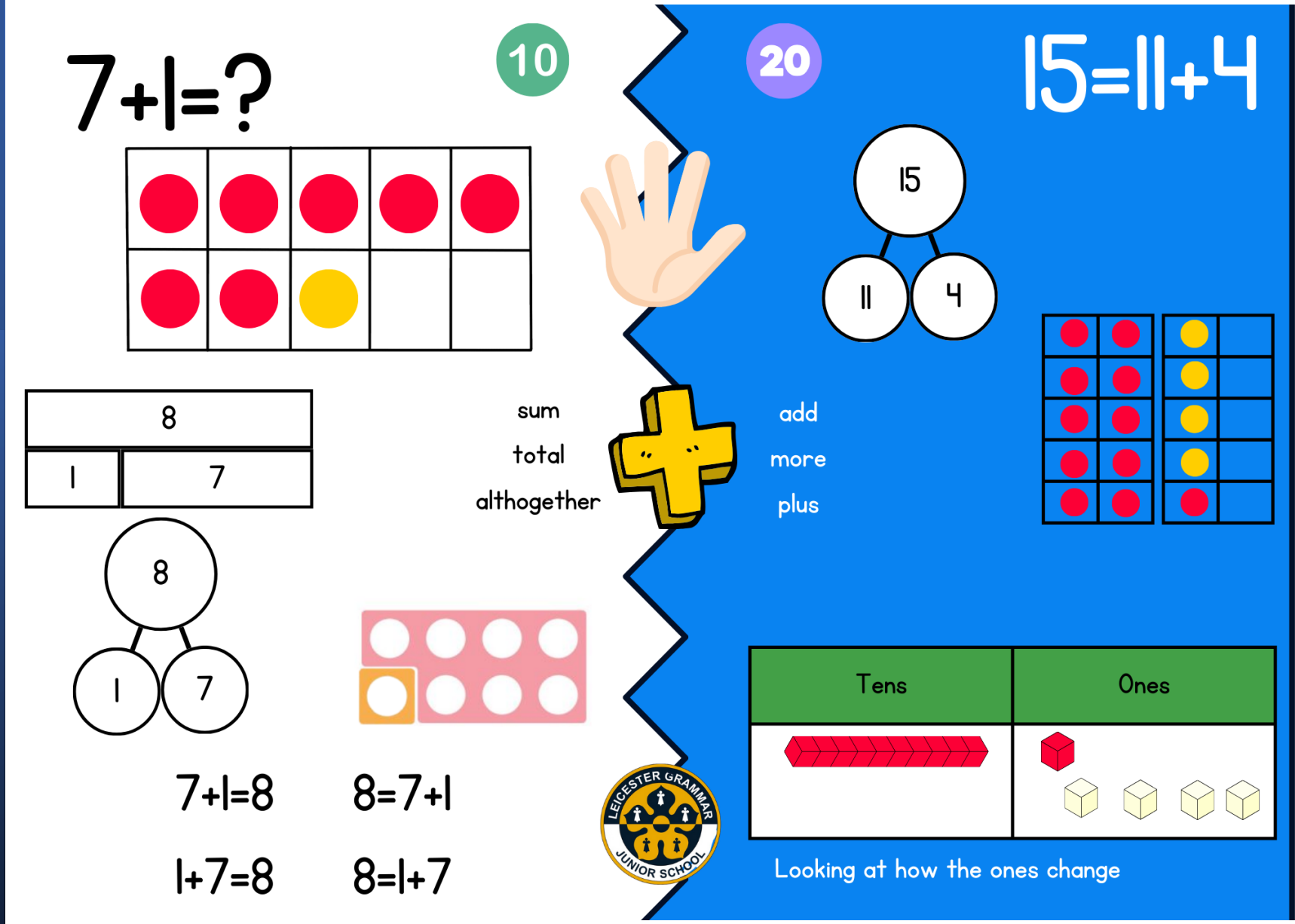
Year 1



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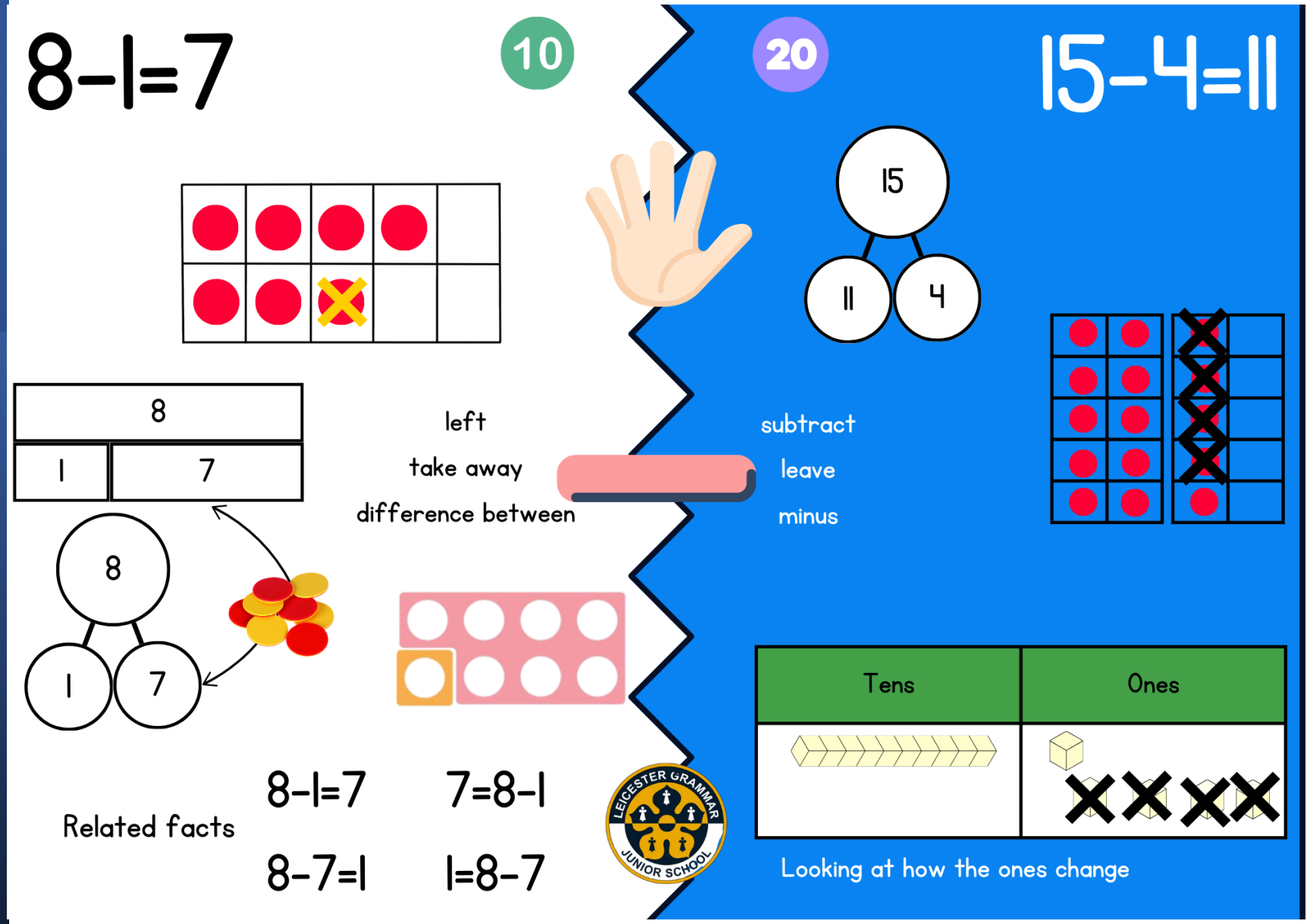
Year 1



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Year 2

	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	Number **Place value**				Number **Addition and subtraction**					Geometry **Shape**		
Spring	Measurement **Money**			Number **Multiplication and division**					Measurement **Length and height**	Measurement **Mass, capacity and temperature**		
Summer	Number **Fractions**				Measurement **Time**			**Statistics**		Geometry **Position and direction**		Consolidation

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Year 2

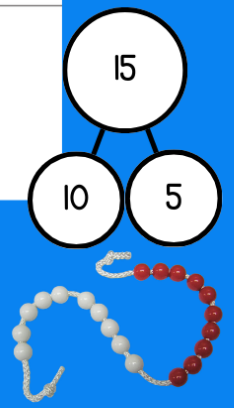
Place Value

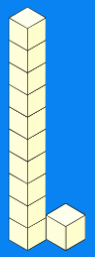
...up to 100

36

30 6

Tens	Ones
15	
5	5 5





Counting in 2s, 3s, 5s and 10s

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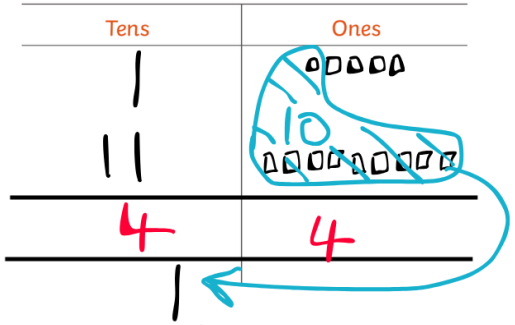
Year 2

Strategy: Drawing



*add the ones first

Strategy: Column

$$\begin{array}{r} 15 \\ +\ 29 \\ \hline 44 \\ \hline 1 \end{array}$$

the 10 made by adding 5+9= 10 and 4

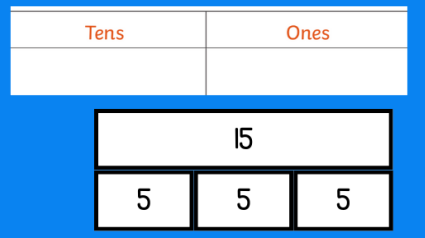
*add the ones first

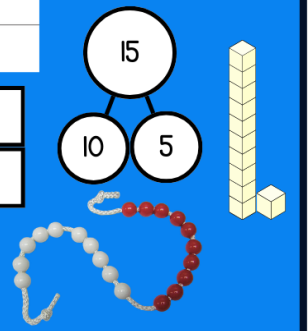
sum
total
althogether

+

add
more
plus

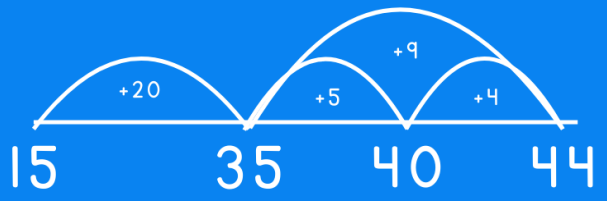
Strategy: Using Concrete Resources





Strategy: Bridging

15 + 29



*add the tens first

Layout is important ready for column addition and subtraction in KS2

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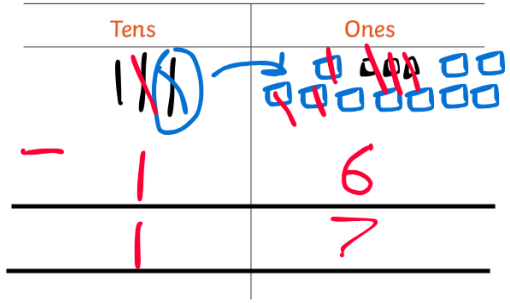
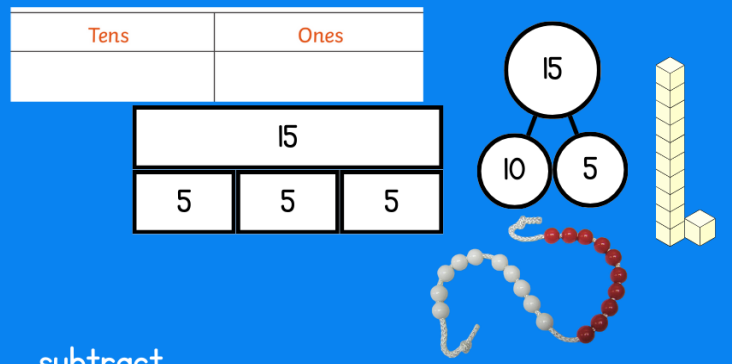
Year 2

Strategy: Drawing



*add the ones first

Strategy: Using Concrete Resources



left
take away
difference between

subtract
leave
minus

Strategy: Column

One ten is exchanged (not taken away) into 10 ones. This means there are now 13 ones

*add the ones first

Strategy: Bridging

33 - 16

*subtract the tens first

Layout is important ready for column addition and subtraction in KS2

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Year 2

$4 \times 5 = 20$

There a four equal groups of 5

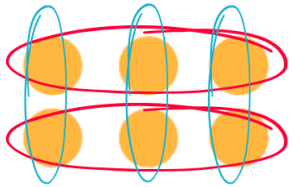
in each group

Other names → lots of, times, product, multiple, repeated addition

multiply

Strategy: Arrays

We use arrays to help us solve multiplication problems



This is repeated addition

$2 \times 3 = 6$ or $3 + 3 = 6$

$3 \times 2 = 6$ or $2 + 2 + 2 = 6$

By the end of Yr 2, your child needs to know how to multiple a number by

x2 x5 x10

(from the 2x, 5x and 10x table)

Strategy: Counting on

We count on, using our fingers or in our head, to workout multiplication calculations

5 10 15

$3 \times 5 = 15$

Count in 5s 3 times

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Year 2

Group — Share

We say 8 ÷ 2 = 4

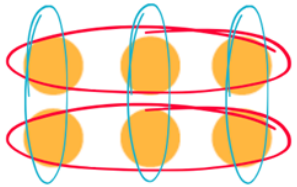
Eight in equal groups of two is four equal groups

Eight shared into two equal groups is four in each group

divide

Strategy: Arrays

We use arrays to help us solve division problems



6 ÷ 2 = 3

6 ÷ 3 = 2

By the end of Yr 2, your child needs to know how to divide a number by

÷2 ÷5 ÷10

(from the 2x, 5x and 10x table)

Strategy: Counting on

We count on, using our fingers or in our head, to workout multiplication calculations

5 10 15

15 ÷ 5 = 3

Count up to 15 in 5s.

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Any Questions?