

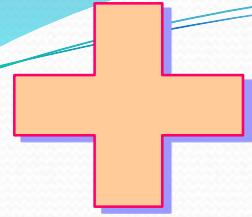


Maths Workshop for parents...

The aim of today's session is to share the calculation methods we use at Engayne, so you are confident in supporting your child at home.

Structure of a Mathematics lesson.

- Every child throughout the school has a dedicated maths lesson each day. In Reception, Maths is integrated into everyday activities, in KS1 it is a 45 minute lesson building up to a 1 hour lesson in KS2.
- In Year 1, we also have extra 15 minute Number Crunch sessions and a dedicated 30 minutes per week for learning and revising times tables.
- Each lesson consists of a mental and oral warm up, a main teaching and learning part and a plenary.



Addition

what is... altogether?

what is the sum of...?

what is... in total?

what is... plus ...?

SUBTRACTION



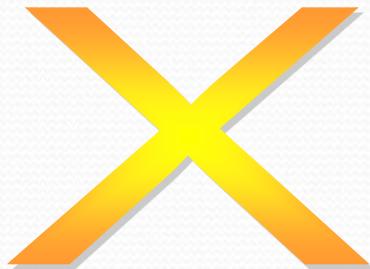
what is... take away ...?

what is the difference between ...?

what is...subtract ...?

what is... minus ...?

MULTIPLICATION



what is 3 groups of 2?

what is 3 lots of 2?

what is 2 multiplied by 3?

$$2 \times 3 = \\ (2 \text{ three times})$$

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Division

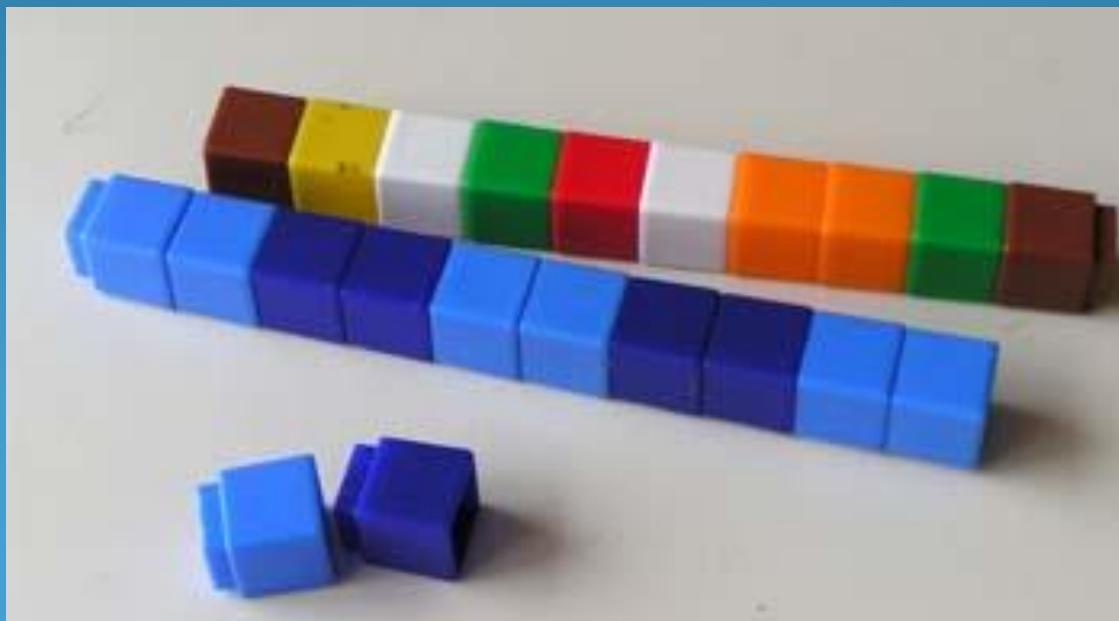
Can you put ten cubes into groups of 2?
How many groups did you make?

Can you cut the cake in half?

There are six sweets, how many children can have 2 each?

KS1 Maths

What we learn and our methods of teaching



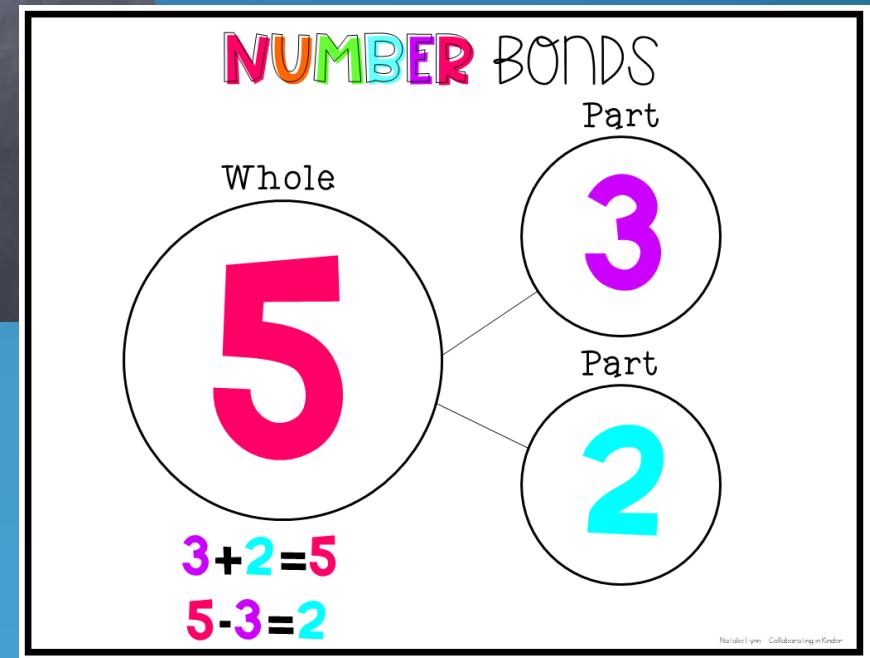
What do we teach in KS1 Maths?

- Number bonds from 10 and 20 (ie $7+3=10$, $18+2= 20$)
- Basic multiplication (2,5,10)
- Basic division (linked in with multiplication facts)
- Fractions ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$)
- Addition and subtraction to 100
- Place value (units, tens and hundreds)
- Time (o'clock, half past, quarter to, quarter past)
- Measurement (weight, length, capacity)
- Money (everyday money- calculating change)
- Problem solving
- Handling data (graphing, tables, sorting data)
- Shape and space (2D and 3D shapes)

*We are going to be focusing on the underlined aspects.

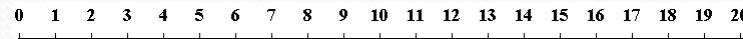
Number bonds to 10

- 0 to 10 are big strong men
- 1 and 9 are feeling fine
- 2 and 8 are never late
- 3 and 7 come from Devon
- 4 and 6 like to play tricks
- 5 and 5 come alive
- 6 and 4 hold open the door
- 7 and 3 visit for tea
- 8 and 2 are feeling blue
- 9 and 1 have just gone
- 10 and 0 are super heroes!!!!!!



Resources

- Number line

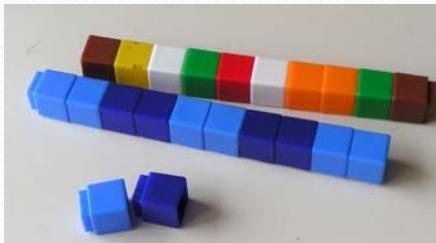


Number square

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

Place value cards

- Unifix sticks



Place Value

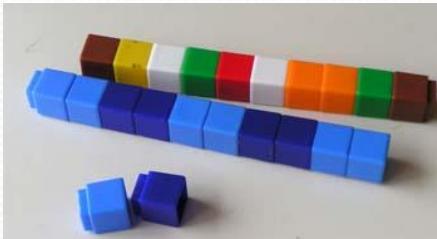
- We use place value cards in combination with unifix cubes a 100 squares to recognise values of numbers.

i.e. make the number 15

Step 1: separate the to its value

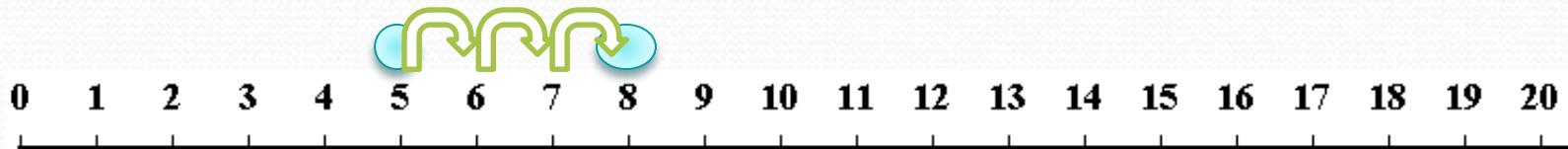
1 ten and 5 ones (units)

Step 2: make that number with either cubes or a value card.

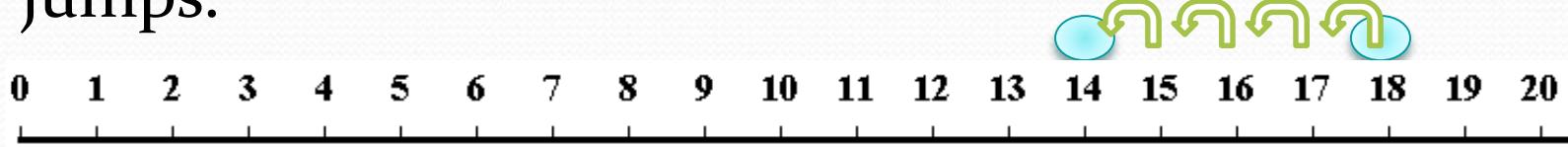


Using a Number Line

- Adding $5 + 3 = 8$
- Step 1 start on the biggest number and count on in jumps.



- Subtracting $18 - 4 =$
- Step 1: start on the biggest number and count back in jumps.



Addition and Subtraction with a number square

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

Using a number grid for patterns and multiplication

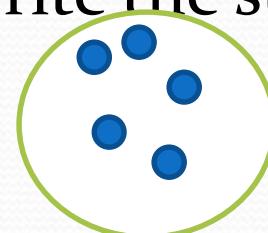
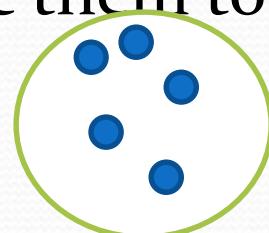
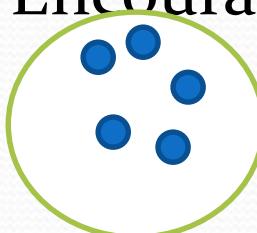
- Colour in the even numbers to recognize odd and even
- Learn the [2, 5 and 10 x table](#)
- [number square](#)
- [Variations for the number square](#)
- Hiding numbers on a [number square](#)

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

Multiplication in ks1

$$\bullet 3 \quad x \quad 5 = 15$$

- Is the same as 2 lots of 5 or $5 + 5 + 5 = 15$
 - Use pictorial cues to represent a x sum.
 - Encourage them to write the sum:



$$\bullet \quad 5 + 5 + 5 = 15$$

Circle the larger number:

a)

16

20

b)

8

18

c)

27

26



4 7 3 5

1. What is the largest 2-digit number you can make?
2. What is the smallest 2-digit number you can make?
3. Make a number between 32 and 37.



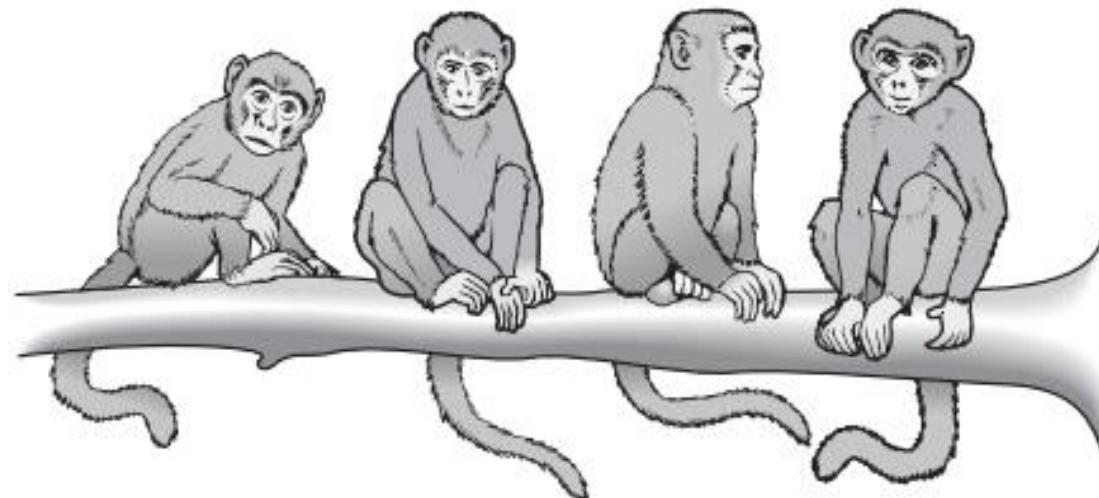
Explain your reasoning.



14

20 bananas are shared equally among **4** monkeys.

How many bananas does **each** monkey get?



bananas



1 mark

What numbers are represented by the counters?



| 10s | 1s |
|-----|----|
| 1 | |

| 10s | 1s |
|-----|----|
| 1 | 1 |

| 10s | 1s |
|-----|----|
| | 4 |

| 10s | 1s |
|-----|----|
| 1 | 10 |

Tia has made numbers: 20 and 2 using four counters.

| 10s | 1s |
|-----|----|
| 2 | 0 |

| 10s | 1s |
|-----|----|
| 0 | 2 |

How many more numbers can you make using 4 counters? What are they?



| 10s | 1s |
|-----|----|
| | |



Add these numbers. What is the quickest way to add them in your head?
Explain your reasoning.

✓ $2 + 8 + 1 =$

✓ $6 + 4 + 5 =$

✓ $7 + 1 + 3 =$



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Circle the number bonds to 20.

$3 + 7$

$2 + 8$

$6 + 5$

$2 + 9$

$2 + 8$

$1 + 9$

$5 + 5$

$4 + 8$

$6 + 4$

$6 + 3$

$2 + 8$

$8 + 2$



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Can you find the related subtraction calculations?



20

4

16

$$4 + 16 = 20$$

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

$$16 + 4 = 20$$

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

20

5

15

$$5 + 15 = 20$$

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

$$15 + 5 = 20$$

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

Can you find the addition and subtraction calculations that show the relations between the numbers in this bar model?



20

3

17

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

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

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

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

Practical maths

Making maths practical by using real materials. Try some of these at home with your child.

- Using coins



using food

- Using measuring cups



cooking



How can you help?

Talk about
how you
do maths

Give praise and
encouragement

Be positive

Ask your
child to
explain



Make sure maths is fun!

Online games

Children love games to engage their learning. Try some of these site links.

