



### Prior Knowledge (Reception Unit 1, 7 and 15)

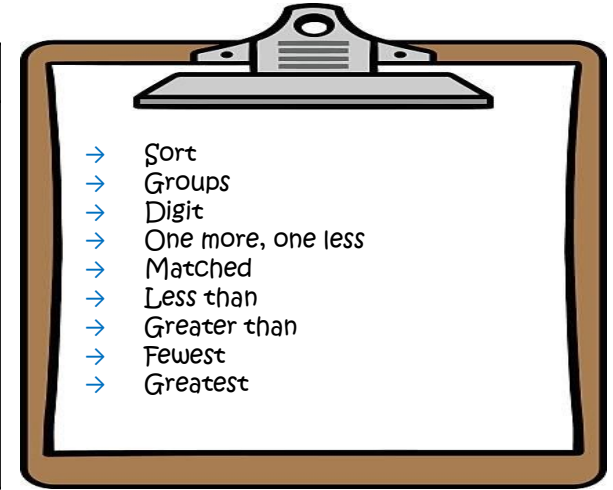
- To know how to sort and count numbers to 5, 10 and 20.
- To know how to write numbers to 10.

### Structures and Representations – Numbers to 10

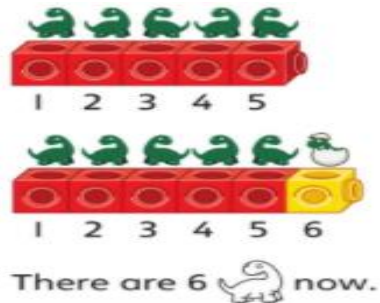
#### Counting with Numicon



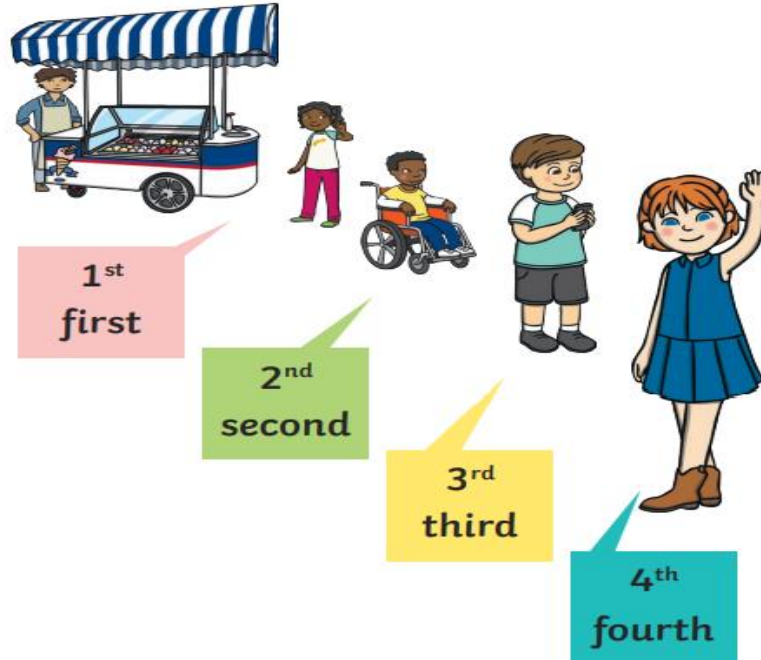
1 2 3 4 5 6 7 8 9 10



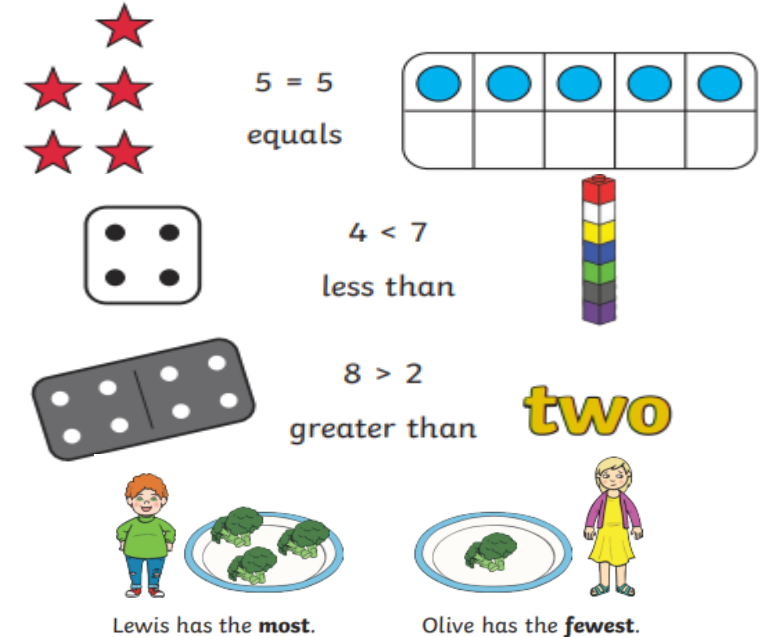
### To know how to find one more or one less.



### To know how to order numbers.



### To know how to compare numbers.



### Links to Derby and Careers

#### Links to Derby

- Shopping in Derbion

#### Links to Careers

- Shop assistant

### Prior Knowledge (Reception Unit 5, 9, 11, 14.)

- To know how to use a part-whole model correctly.
- To know how to compare 2 groups to find the whole
- To know how to use a ten frame
- To know that we add by counting on
- To know that taking away means we are counting back

### Structures and Representations

#### Number line

#### Numicon

$3 + 2 = 5$

#### Part-whole model

$5 = 1 + 4$

- Altogether
- Add
- Subtract
- Total
- How many more
- How many fewer
- Difference

### To know how to count on.

Counting on

$4 + 3 = 7$

### To know how to count back.

$7 - 3 = 4$

Counting back



To know and find related number facts.

5 + 3 gives the same answer as 3 + 5. You can add in any order and you will get the same answer!

I got 4 number sentences.

- $6 - 2 = 4$
- $6 - 4 = 2$
- $2 + 4 = 6$
- $4 + 2 = 6$

I found a different way to write them.

- $4 = 6 - 2$
- $2 = 6 - 4$
- $6 = 2 + 4$
- $6 = 4 + 2$



There are 8 different number sentences that show this fact.

### Links to Derby and Careers

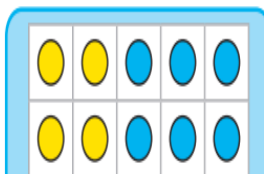
#### Links to Derby

- Rolls Royce/Henry Royce
- Bombardier
- Derbion

#### Links to Careers

- Teaching
- Shop Assistant in Derbion

To know how to compare addition and subtraction.

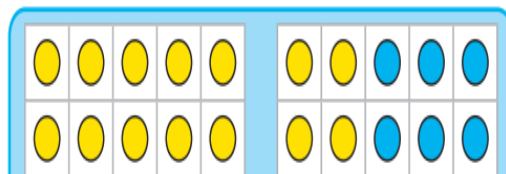


$4 + 6 = 10$

$10 - 6 = 4$

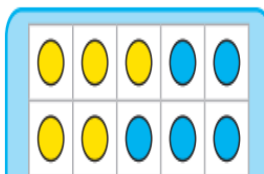
$4 + 6 < 14 + 6$

$14 = 20 - 6$



$14 + 6 = 20$

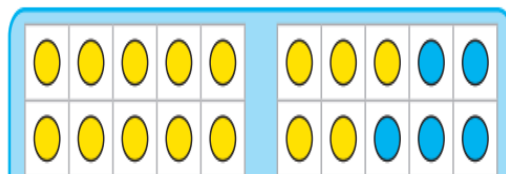
$20 - 6 = 14$



$5 + 5 = 10$

$10 - 5 = 5$

$20 - 5 > 20 - 6$



$15 + 5 = 20$

$20 - 5 = 15$

To know how to find and make number bonds.

$5 - 0 = 5$   $5 + 0 = 5$

$5 - 1 = 4$   $4 + 1 = 5$

$5 - 2 = 3$   $3 + 2 = 5$

$5 - 3 = 2$   $2 + 3 = 5$

$5 - 4 = 1$   $1 + 4 = 5$

$5 - 5 = 0$   $0 + 5 = 5$

### Word Problems

#### Tips and tricks

-To know when faced with a word problem that you use your concrete resources to help you (Numicon, dienes, number lines)- this will make it much easier.



### Prior Knowledge (Reception Unit 3, 17)

- To know how to identify a 2D shape.
- To know how to identify a 3D shape.
- To know how to compose and decompose shapes.

### To know 2D shapes

square	circle	rectangle	triangle

### To know 3D shapes

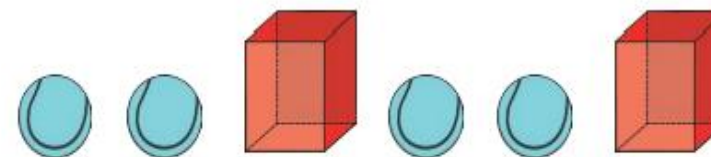
cube	cuboid	sphere	cylinder	cone

### To know how to make patterns with shapes.

A pattern follows a rule.



What shape will be next?



What shape will be next?

- 3D shape
- Cube
- Cuboid
- Sphere
- Pyramid
- Cylinder
- Cone
- 2D shape
- Pattern
- Triangle
- Rectangle
- Faces
- Square
- Repeat

### Links to Derby and Careers

#### Links to Derby

- Visiting Derby Museum looking at art

#### Links to Careers:

- Artist, architect





# Maths Knowledge Organiser


## Year 1: Number and Place Value (Numbers to 20)

**Prior Knowledge** (Reception Unit 1, 7 and 15, Year 1 Unit 1)


- To know how to count to 5, 10 and 20.
- To know how to find one more and one less.
- To know how to order numbers.
- To know how to compare numbers.

**Structures and Representations – Numbers to 20**


Dienes      Tens and ones      Part-whole model

**one**      


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**two**      

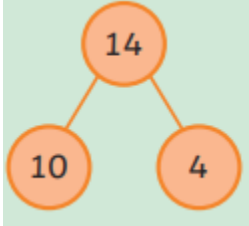
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**three**      

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**four**      


Tens	Ones
	






- Less than
- Greater than
- Fewest
- Greatest
- Order
- Smallest
- Tens
- ones

To know how to count in 2's..

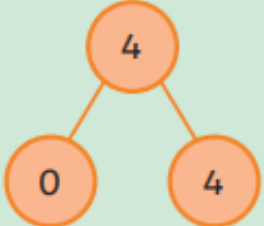



**2    4    6    8    10**

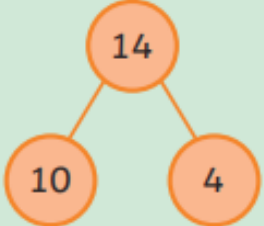




**12   14   16   18   20**

To know how to show tens and ones

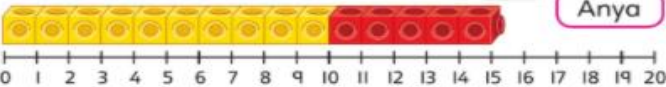


Tens	Ones
	

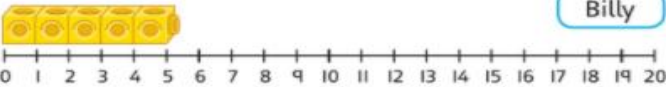


Tens	Ones
	

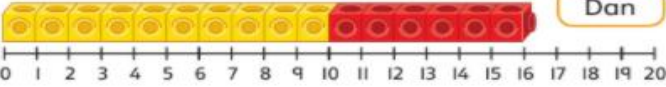
To know how to order objects and numbers



Anya



Billy



Dan

5 is **less than** 15.

15 is less than 16.


5 < 15 < 16

b) 16 is **greater than** 5.

16 is greater than 15.

Dan has the most sweets.

I don't think you have to count them all to put them in order. Can you see who has the least straight away?



**Links to Derby and Careers**

**Links to Derby**

- Shopping in Derbion

**Links to Careers**

- Shop assistant