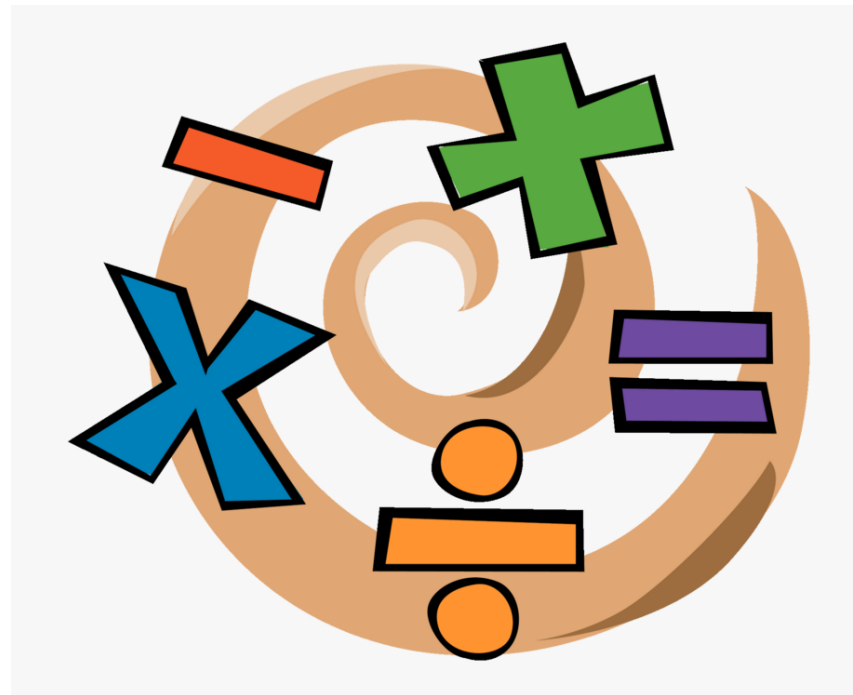




# Year 1 maths





Dear Parents/Carers,

Welcome to this guide to Maths in Year 1. In this booklet you will find knowledge organisers for every Maths topic covered in Year 1 and then some extracts from our calculation policy showing the methods taught. The knowledge organisers include the key vocabulary the children will come across in each topic as well as the key objectives taught and models and images used.

We hope you find these useful and that they will help show you what is being taught in school this year.

Year 1 Team

# Number and Place Value

## Number and Place Value

## Knowledge Organiser

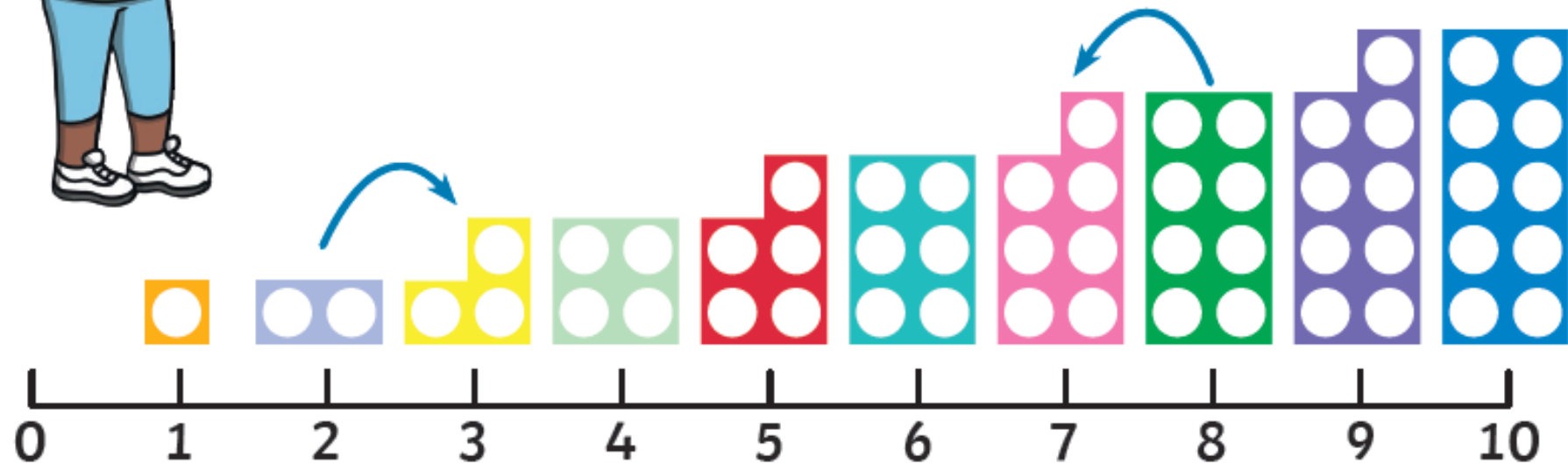
### One More and One Less



One more than  
two is three.



One less than  
eight is seven.



# Number and Place Value

# Knowledge Organiser

## Ordering



1<sup>st</sup>

first

2<sup>nd</sup>

second

3<sup>rd</sup>

third

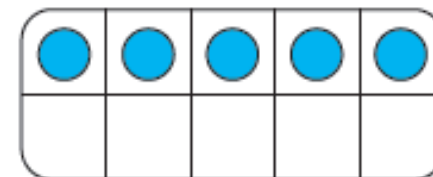
4<sup>th</sup>

fourth

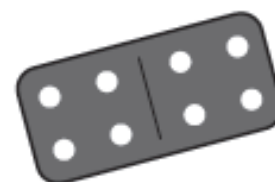
## Comparing



5 = 5  
equals



4 < 7  
less than



8 > 2  
greater than

two



Lewis has the **most**.



Olive has the **fewest**.

## Key Vocabulary

one 

two 

three 

four 

five 

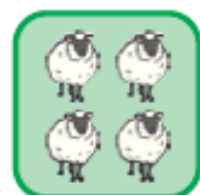
six 

seven 

eight 

nine 

ten 



least  
smallest




most  
greatest



## Key Vocabulary

eleven 

twelve 

thirteen 

fourteen 

fifteen 

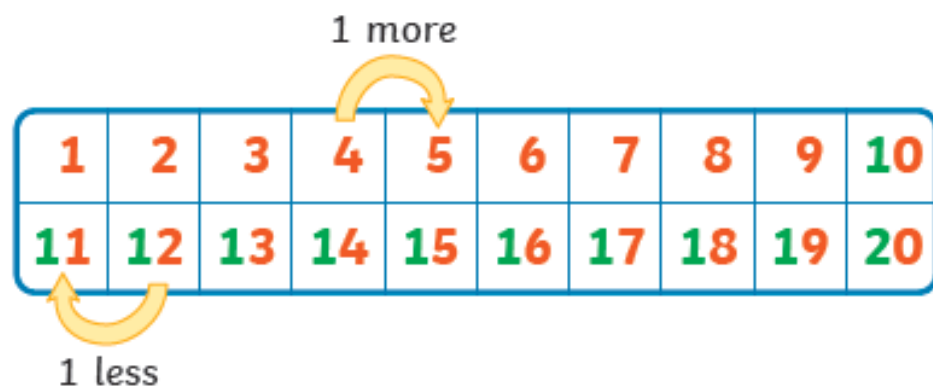
sixteen 

seventeen 

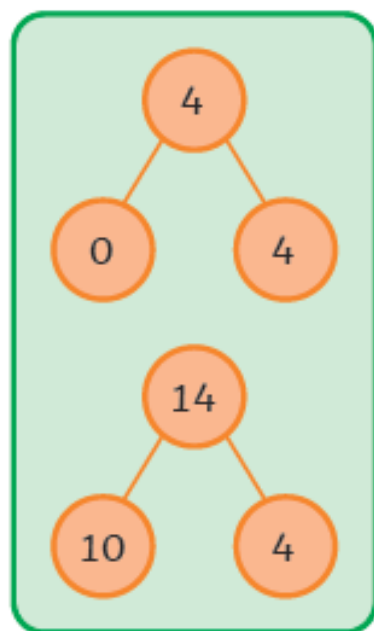
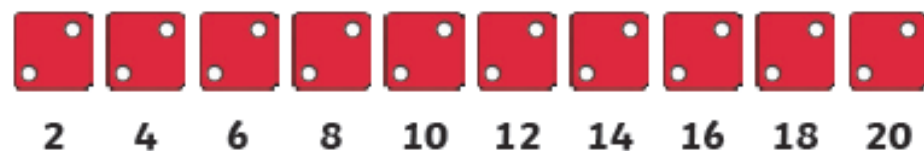
eighteen 

nineteen 

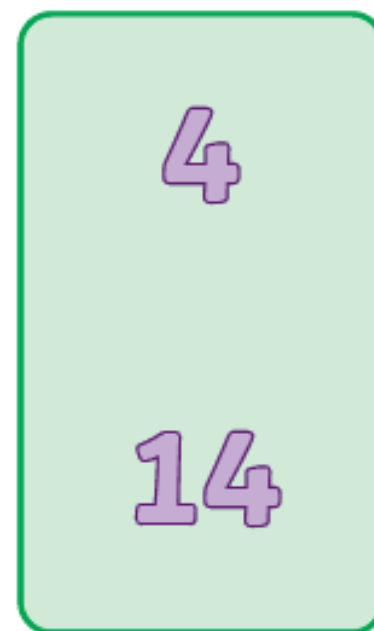
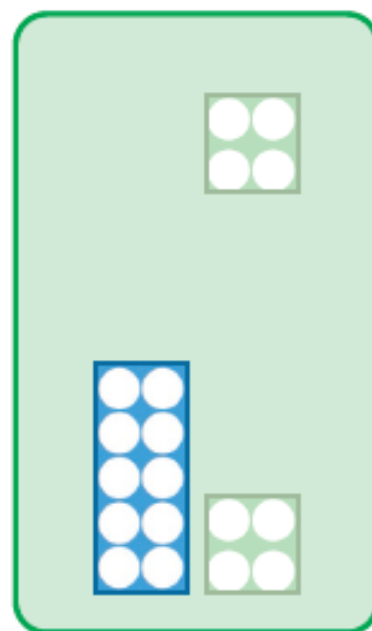
twenty 



### Counting in Twos



Tens	Ones
Tens	Ones



# Number and Place Value to 50

## Knowledge Organiser

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



One more than 43 is 44



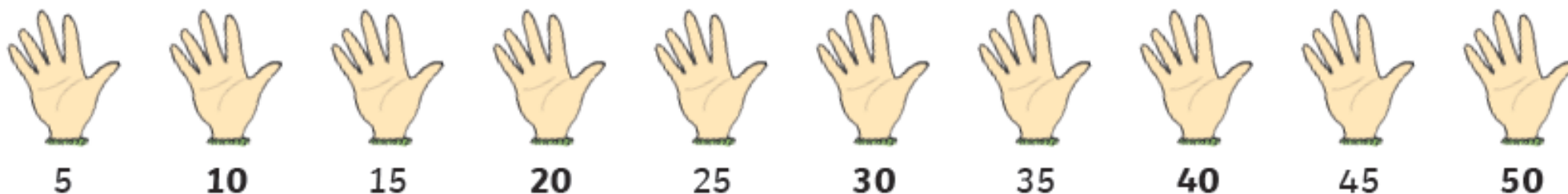
49 is one less than 50

10	20	21, 22, 23

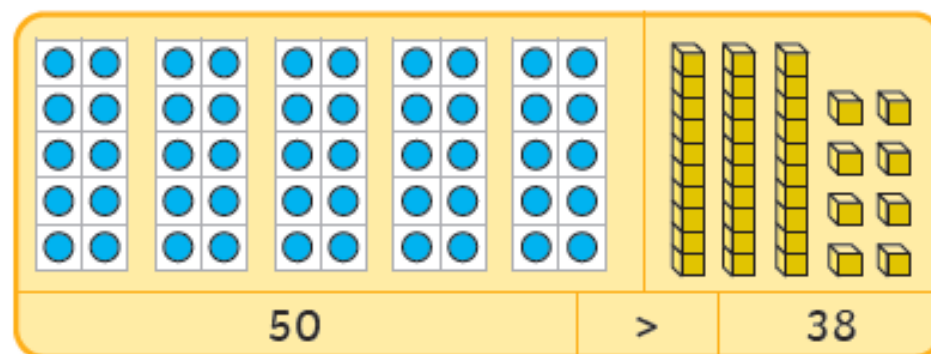
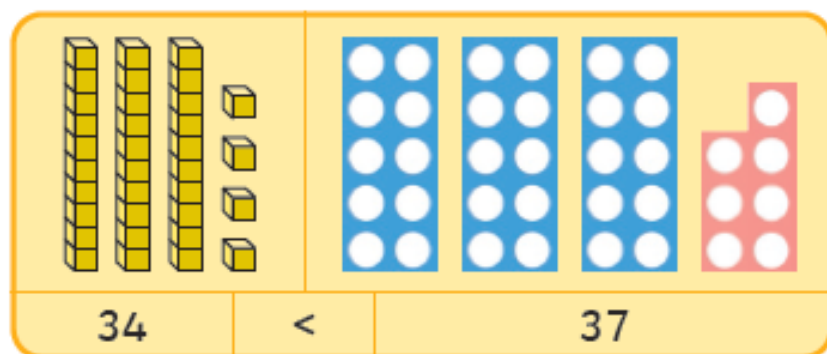
10	20	30	31, 32, 33, 34



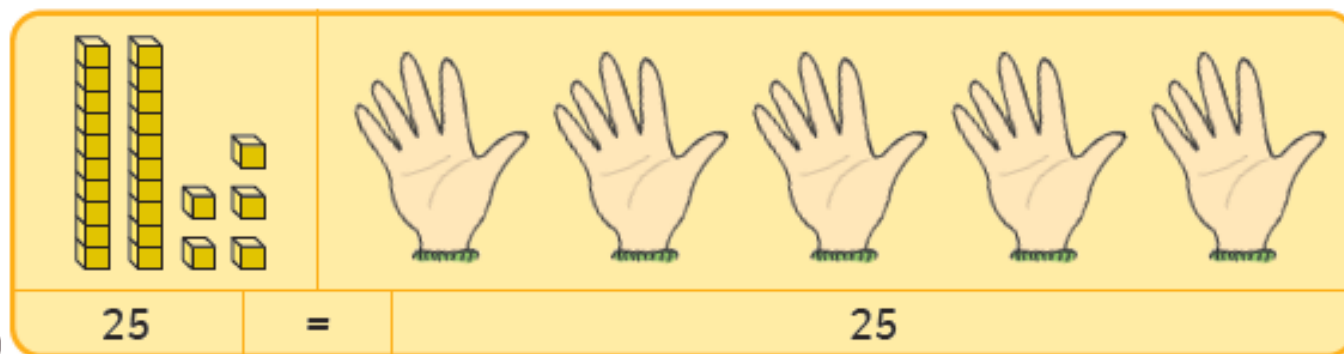
### Counting in Fives



### Comparing Numbers



< is less than  
= is equal to  
> is more than





## Counting to 100

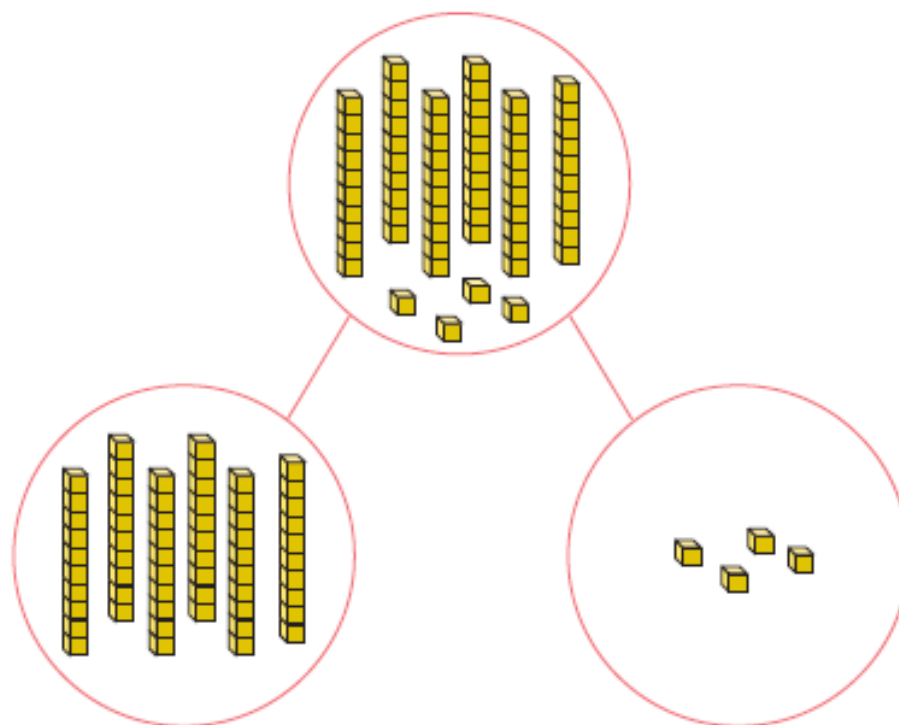
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

One more than 92 is 93.

One less than 100 is 99.

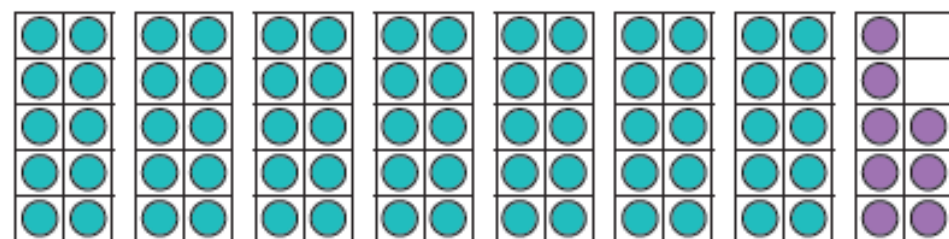
## Partitioning

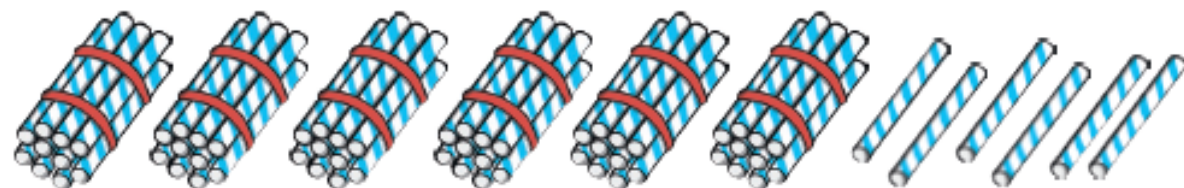
64 has 6 tens and 4 ones



Tens	Ones
6	4

### Comparing Numbers


 $>$ 

 $<$ 

 $=$ 

sixty-six

### Ordering Numbers

smallest to greatest  $\longrightarrow$  55, 67, 89, 91, 100

greatest to smallest  $\longrightarrow$  99, 82, 73, 68, 50

 $<$  is less than

 $=$  is equal to

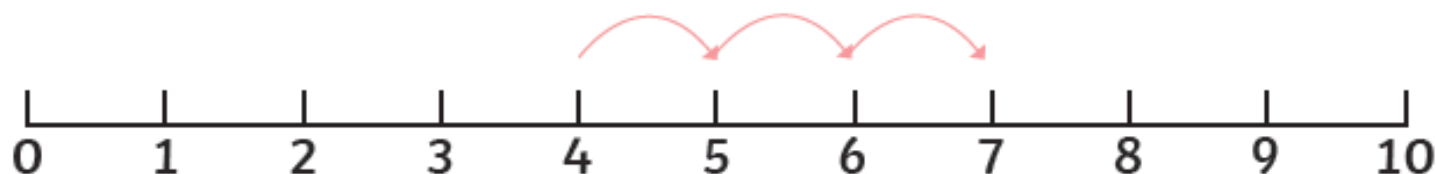
 $>$  is more than


# Addition and Subtraction

## Addition and Subtraction

## Knowledge Organiser

### Counting On and Counting Back



Counting on

$$4 + 3 = 7$$



$$7 - 3 = 4$$

Counting back

## Number Bonds

$$5 - 0 = 5 \quad \text{● ● ● ● ●} \quad 5 + 0 = 5$$

$$5 - 1 = 4 \quad \text{● ● ● ● ●} \quad 4 + 1 = 5$$

$$5 - 2 = 3 \quad \text{● ● ● ● ●} \quad 3 + 2 = 5$$

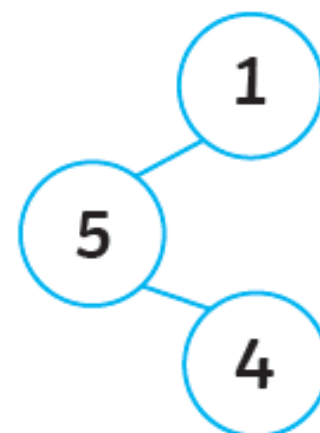
$$5 - 3 = 2 \quad \text{● ● ● ● ●} \quad 2 + 3 = 5$$

$$5 - 4 = 1 \quad \text{● ● ● ● ●} \quad 1 + 4 = 5$$

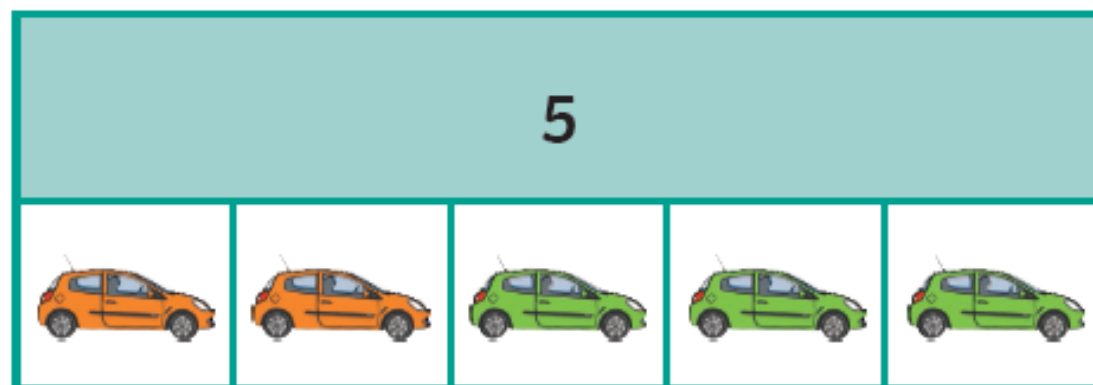
$$5 - 5 = 0 \quad \text{● ● ● ● ●} \quad 0 + 5 = 5$$

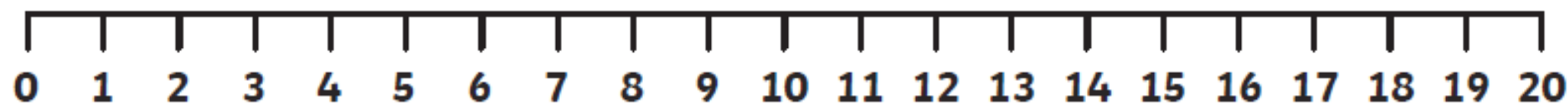


$$3 + 2 = 5$$



$$5 = 1 + 4$$





## Number Bonds



$$4 + 6 = 10$$

$$10 - 6 = 4$$

$$4 + 6 < 14 + 6$$

$$14 = 20 - 6$$



$$14 + 6 = 20$$

$$20 - 6 = 14$$



$$15 + 5 = 20$$

$$20 - 5 = 15$$



$$5 + 5 = 10$$

$$10 - 5 = 5$$

$$20 - 5 > 20 - 6$$

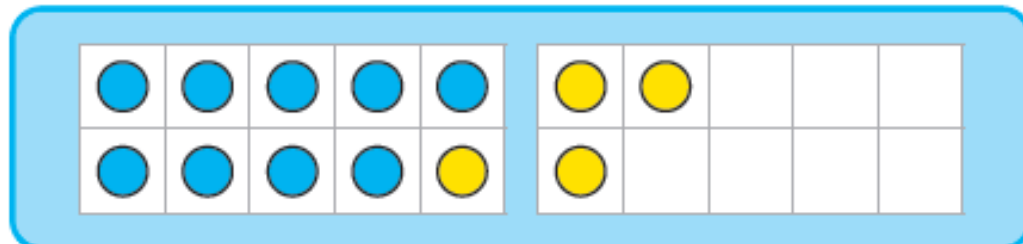
# Addition and Subtraction



First

Then

Now



I partitioned 4 into  
1 and 3.

$$9 + 1 = 10$$

$$10 + 3 = 13$$



# Knowledge Organiser

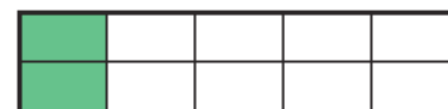
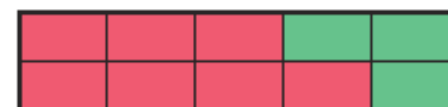
First



Then



Now



I partitioned 5  
into 2 and 3.

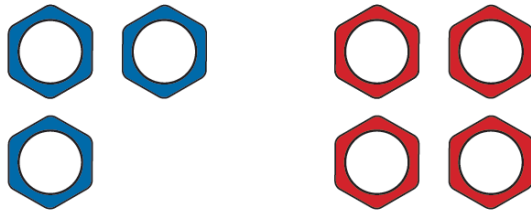
$$12 - 2 = 10$$

$$10 - 3 = 7$$



# Written Methods and Visuals

## A1: Objects & Pictures



"If I have 3 blue pegs and 4 red pegs, how many altogether?  
Answer: 7"



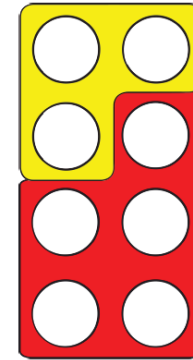
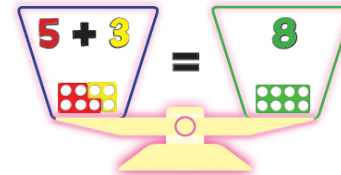
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## A2: Number Sentence

$$\begin{array}{rcl} 5 + 3 & = & 8 \\ 3 + 5 & = & 8 \\ 5 + ? & = & 8 \\ 8 & = & 5 + 3 \end{array}$$



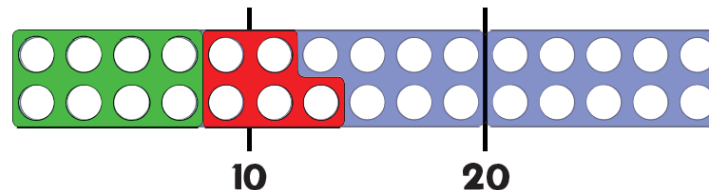
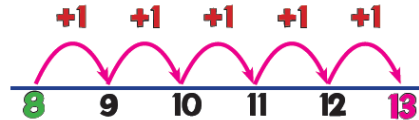
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## A3: Counting On

$$8 + 5 = 13$$



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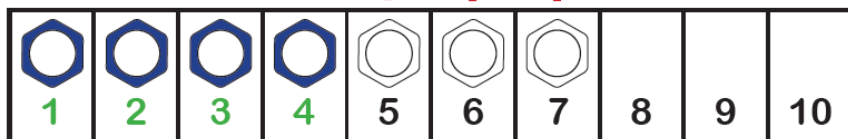
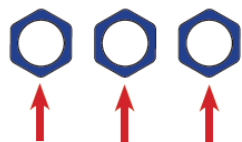
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# S1: Objects & Pictures

$$7 - 3 = 4$$



"What do I get if I take 3 away from 7? Answer: 4"

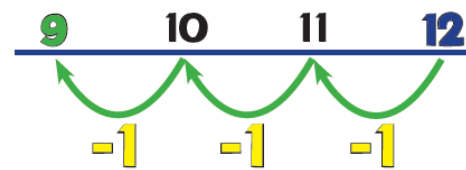


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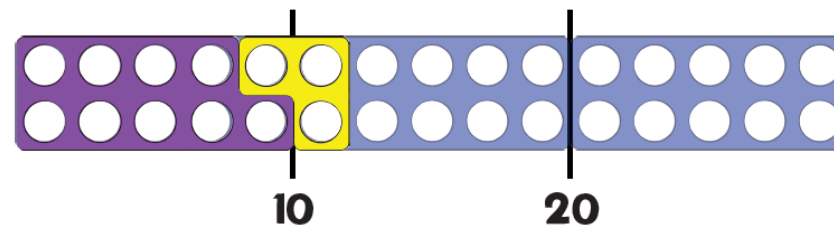


# S2: Counting Back



$$12 - 3 = 9$$

"What do I get if I take 3 away from 12? Answer: 9"



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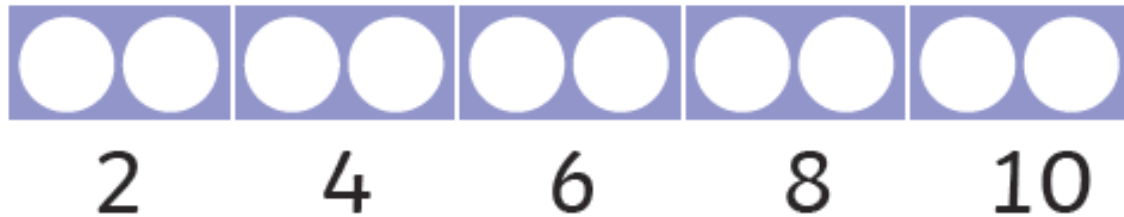


# Multiplication and Division

## Multiplication and Division

## Knowledge Organiser

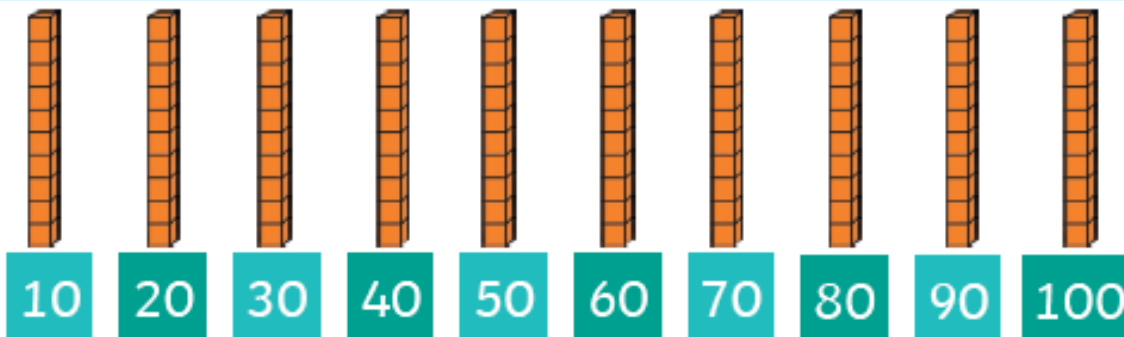
### Count in 2s



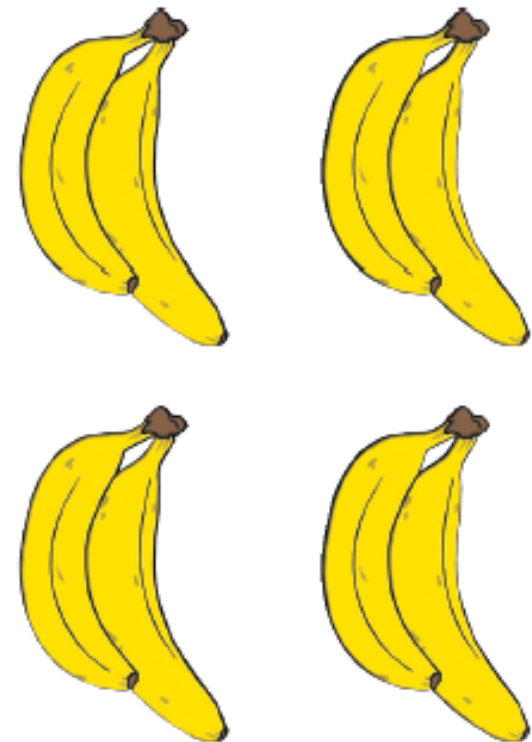
### Counting in 5s



### Count in 10s

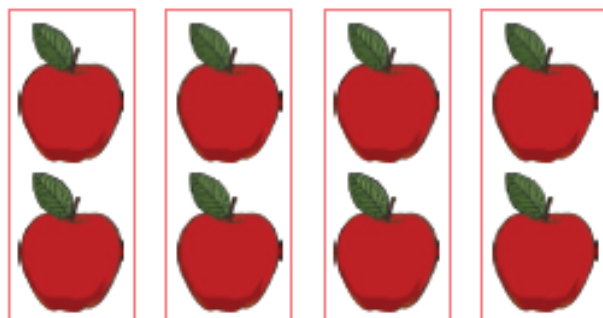


### Make Equal Groups



There are 4 equal groups of 2 bananas.

## Add Equal Groups



$$2 + 2 + 2 + 2 = 8 \text{ apples}$$

## Make Arrays



$$4 \text{ rows of } 5 = 20 \text{ cookies}$$

$$5 \text{ columns of } 4 = 20 \text{ cookies}$$

## Make Doubles



$$\text{double } 1 \text{ is } 2$$

$$1 + 1 = 2$$

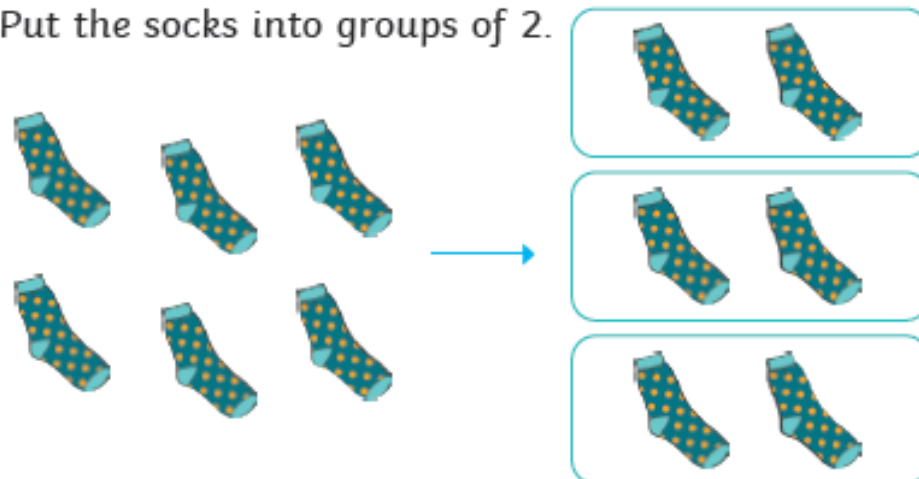


$$\text{double } 5 \text{ is } 10$$

$$5 + 5 = 10$$

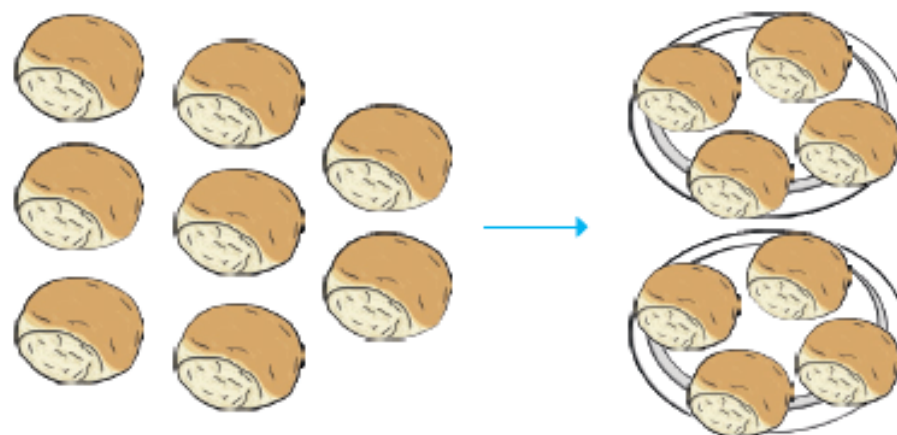
## Group Equally

Put the socks into groups of 2.



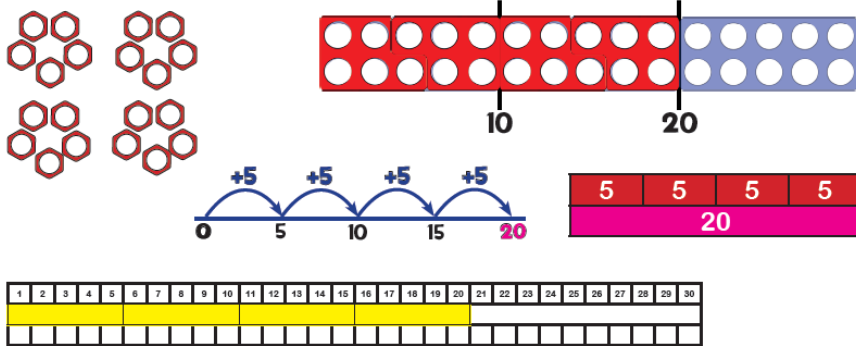
## Share Equally

Share the buns equally between the 2 plates.



# Written Methods and Visuals

## M1: Repeated Addition

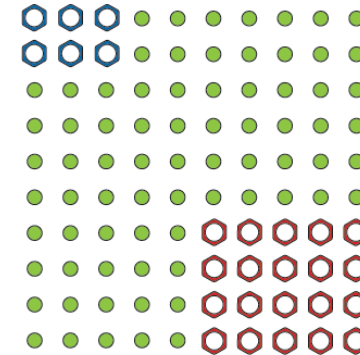


$$5 \times 4 = 5 + 5 + 5 + 5 = 20$$

"5 multiplied by 4" means "5, 4 times", which gives "4 lots of 5"!

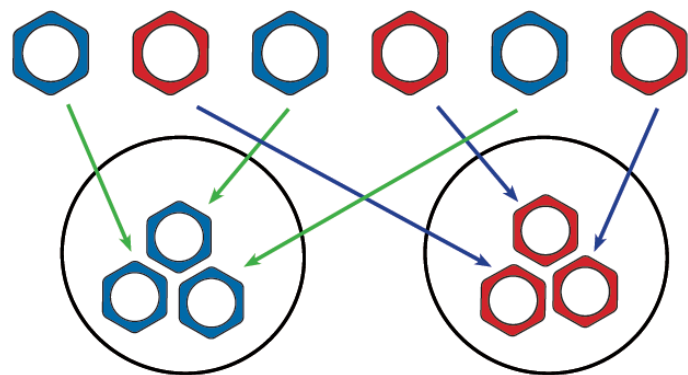
## M2: Arrays

$$3 \times 2 = 6$$



$$5 \times 4 = 20$$

# D1: Sharing

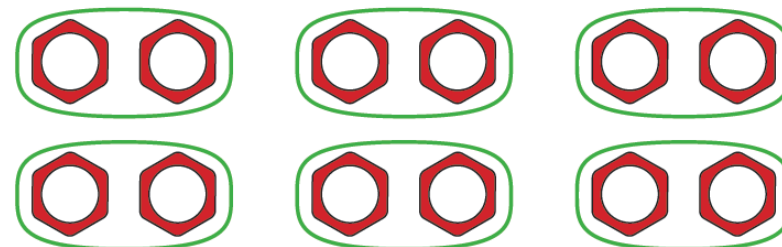


"If I share 6 pegs into 2 equal amounts, how many in each group?" Answer: 3

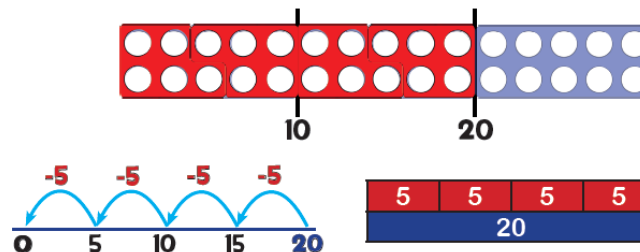
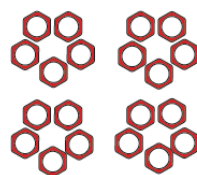
# D2: Division as Grouping

$$12 \div 2 = 6$$

"How many groups of 2 can I fit into 12?"  
Answer: 6



# D3: Grouping



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

$$20 \div 5 = 4$$

"How many 5s in 20?"  
Answer: 4

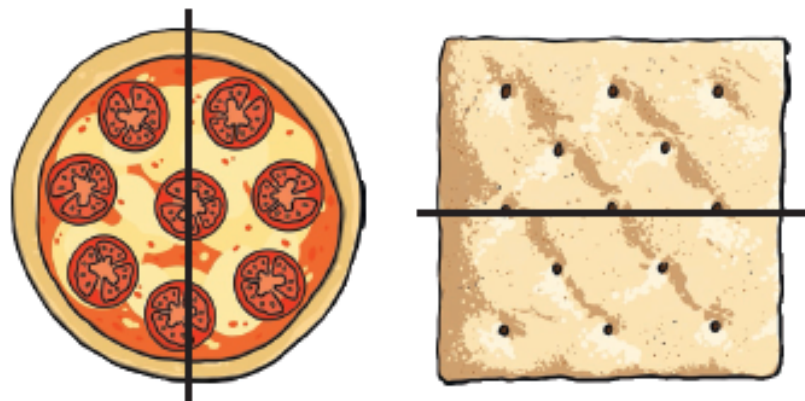
# Fractions

## Fractions

## Knowledge Organiser

### Half of a Shape

These objects and shapes are split in **half**.

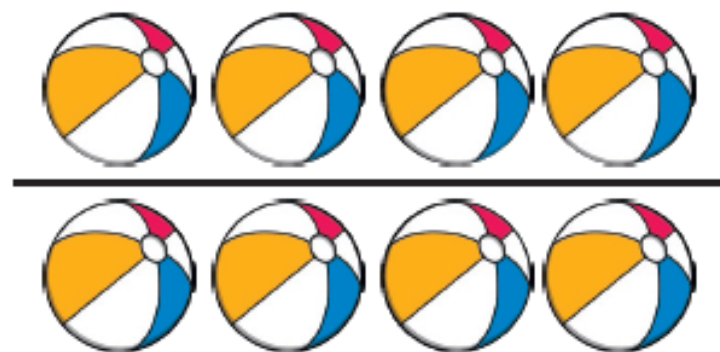


Each whole has **2 equal parts**.



### Half of a Group

There are 8 balls. Half of 8 is 4.



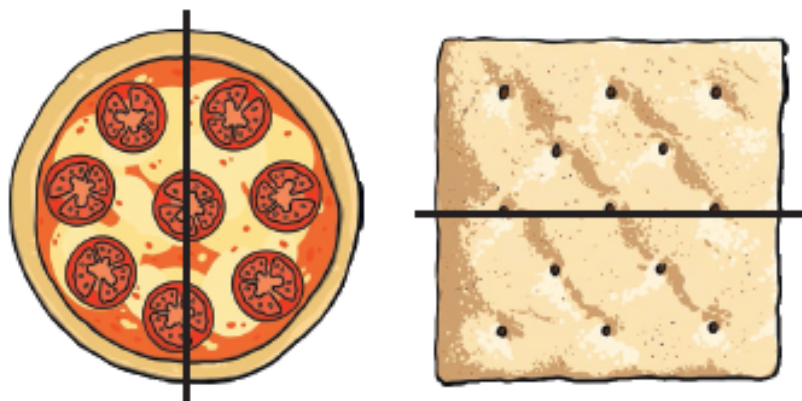
There are 10 balloons. Half of 10 is 5.





## Half of a Shape

These objects and shapes are split in **half**.

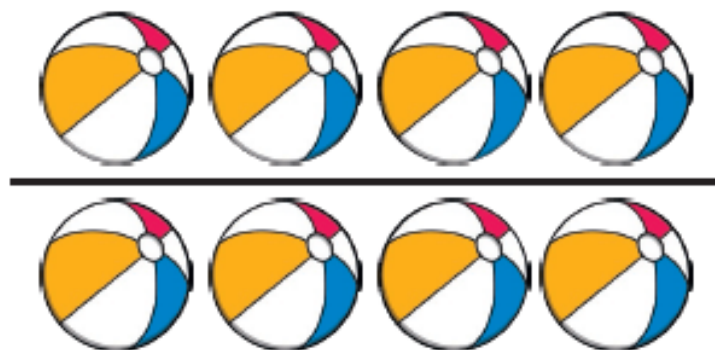


Each whole has **2 equal parts**.



## Half of a Group

There are 8 balls. Half of 8 is 4.



There are 10 balloons. Half of 10 is 5.





### Before and After

before

after



first



next



finally

**First**, I brush my teeth.

**Next**, I look at a book.

**Finally**, I go to sleep.

I brush my teeth **before** I look at a book.

I go to sleep **after** I look at a book.

### Days of the Week

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

Sunday

### Months of the Year

January

February

March

April

May

June

July

August

September

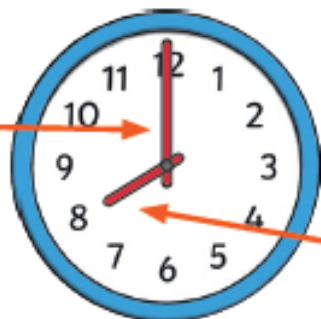
October

November

December

## Telling the Time

The **long hand** is the **minute hand**.



The **short hand** is the **hour hand**.

The time is **8 o'clock**.

## Telling the Time to the Hour

At the hour, the **minute hand** points to 12.

**3 o'clock**



**6 o'clock**



**9 o'clock**



The **hour hand** points to the hour.

## Telling the Time to the Half Hour

At half past, the **minute hand** is half way round the clock pointing to the 6.

**half past 1**



**half past 11**







**half past 7**



The hour hand will be halfway between one hour and the next.

## Comparing Time

A  is faster than a .

A  is slower than a .



4 o'clock is **earlier** than half past 4.



Half past 4 is **later** than 4 o'clock.

# Length and Height

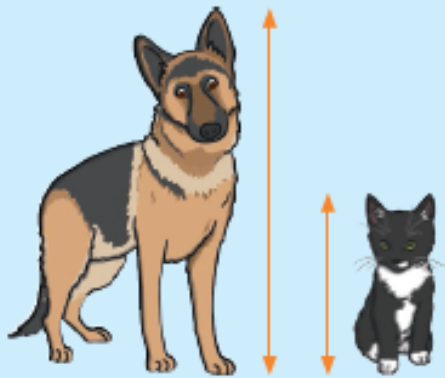
## Length and Height

## Knowledge Organiser

### Height

The dog is **taller**  
than the cat.

The cat is **shorter**  
than the dog.



**tallest**

**shortest**

### Length



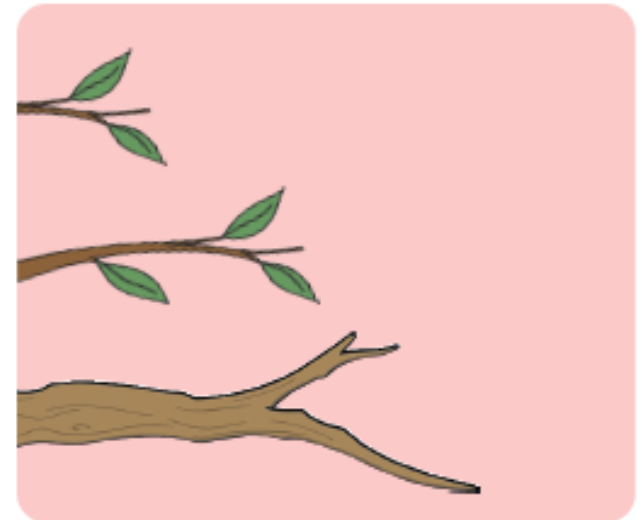
The car  
is **shorter**  
than  
the train.

The train  
is **longer**  
than the car.

**shortest**

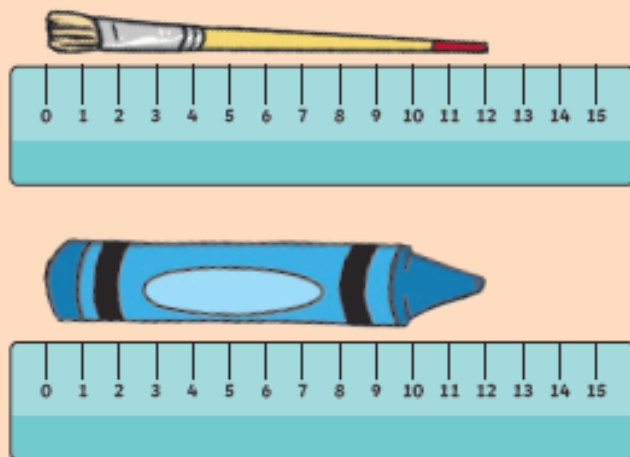


**longest**

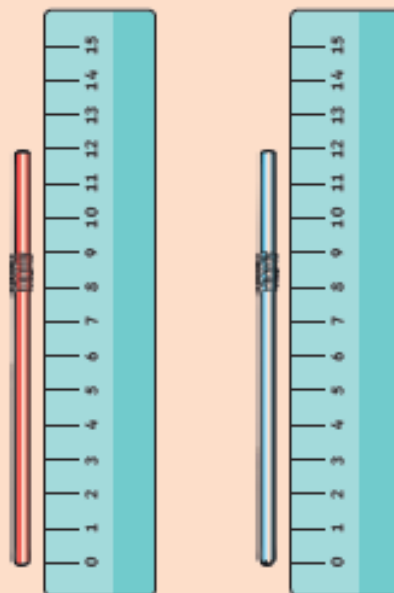


## Length and Height

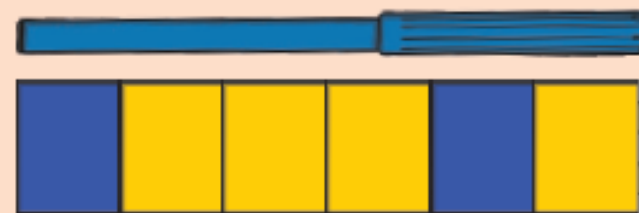
The same length.



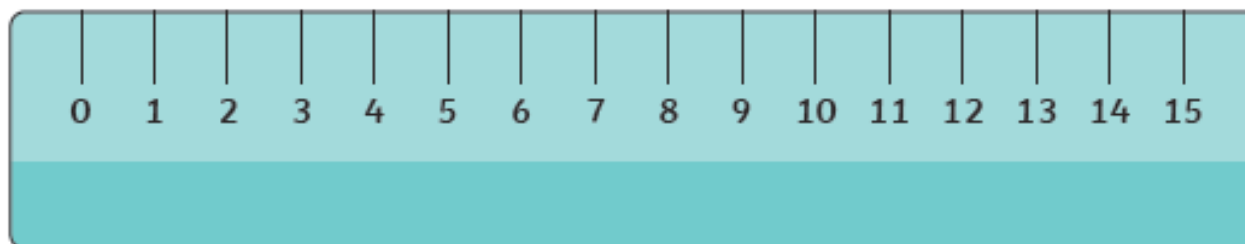
The same height.



This pen is 6 cubes long.



This ruler is to scale.



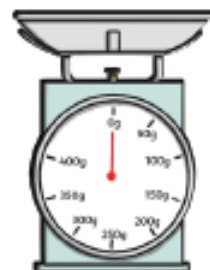
# Weight and Volume

## Weight and Volume

## Knowledge Organiser

### Weight and Mass

We can use different types of scales to measure mass.



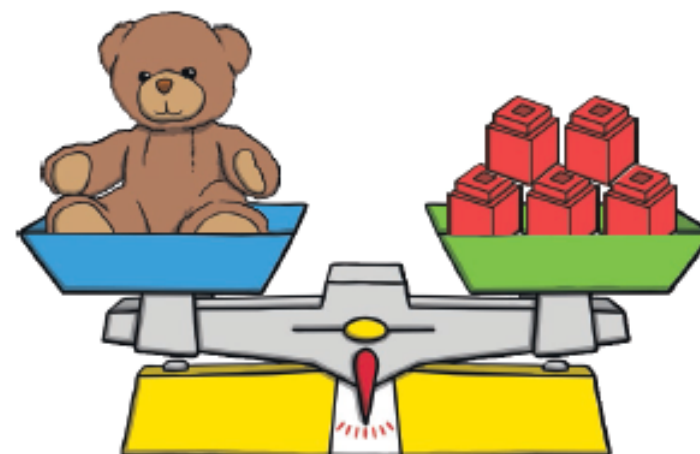
### Compare Mass

The duck is **heavier** than the ball.  
The ball is **lighter** than the duck.



### Measure Mass

The teddy **weighs** the same as 5 cubes.  
They are **balanced**.



## Capacity and Volume

We can use different containers to measure volume.

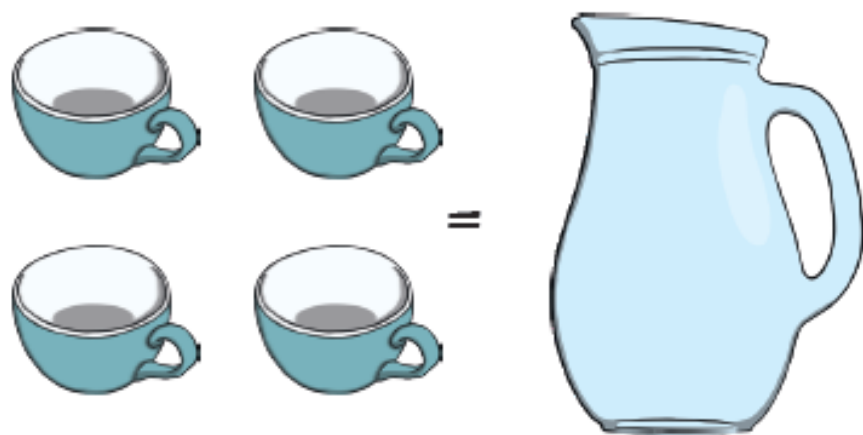


**Capacity** is the total amount of liquid a container can hold.

**Volume** is the amount of liquid that is in the container.  
This can vary.

## Measure Capacity

It takes 4 cups to fill this jug.



## Compare Capacity

**empty**

nearly  
empty

**half  
full**

nearly  
full

**full**



B has more water than A. D has less water than E.



# Position and Direction

## Position and Direction

## Knowledge Organiser

### Describing Movement



quarter turn



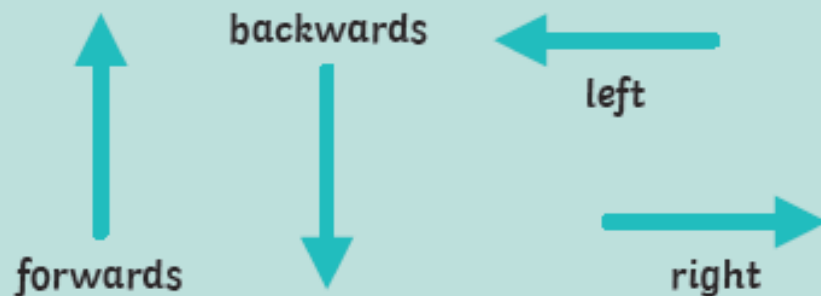
half turn



three-quarter turn



full turn



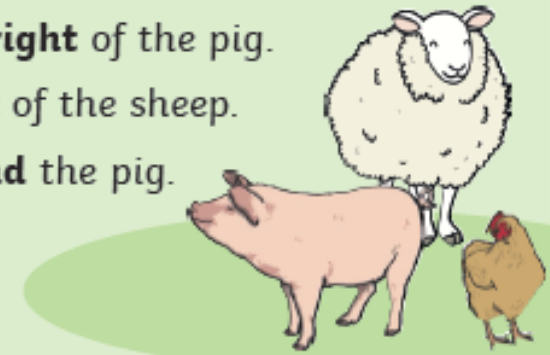
### Describing Position

The pig is to the **left** of the hen.

The hen is to the **right** of the pig.

The pig is in **front** of the sheep.

The sheep is **behind** the pig.



The duck is **below** the doll.

The car is **above** the doll.

The car is on the **top** shelf.

The doll is on the **middle** shelf.

The duck is on the **bottom** shelf.

The doll is **between** the car and the duck.

