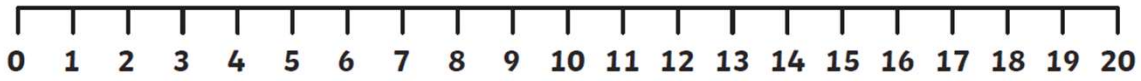
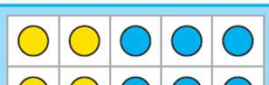

Green Class

Addition and Subtraction: Stage 1

Addition and Subtraction — Knowledge Organiser



Number Bonds



4 + 6 = 10

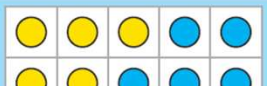
10 − 6 = 4

4 + 6 < 14 + 6

14 = 20 − 6

14 + 6 = 20

20 − 6 = 14



5 + 5 = 10

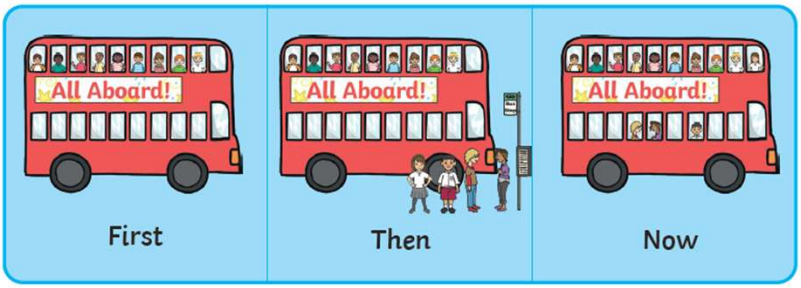
10 − 5 = 5

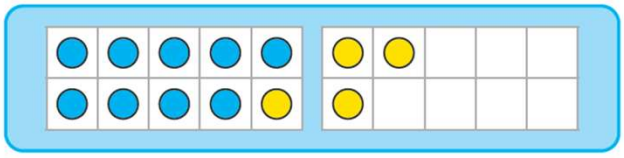
20 − 5 > 20 − 6

15 + 5 = 20

20 − 5 = 15

Addition and Subtraction — Knowledge Organiser

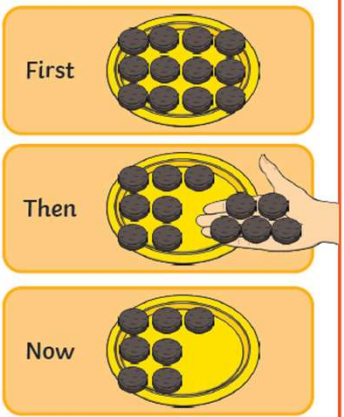


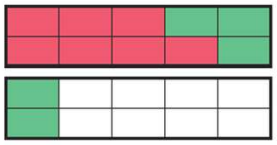


I partitioned 4 into 1 and 3.

9 + 1 = 10

10 + 3 = 13





I partitioned 5 into 2 and 3.

12 − 2 = 10

10 − 3 = 7

Addition and Subtraction: Stage 2

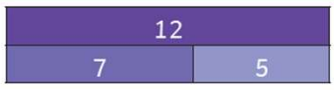
Addition and Subtraction — Knowledge Organiser

Key Vocabulary

- Add
- Total
- Make
- Plus
- Sum
- More
- Altogether
- Difference
- Leave
- Subtract
- Difference between
- Less
- Minus
- Take away
- Mentally, Orally
- Column Addition
- Column Subtraction
- Estimate
- Inverse operation
- Solve problems
- Number facts
- Place Value

Addition and Subtraction Bonds to 20

15 + 5 = 20
20 – 5 = 15
20 – 15 = 5



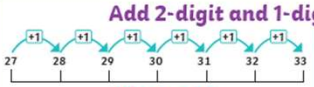
7 + 5 = 12
12 – 5 = 7
12 – 7 = 5

4 + 3 = 7

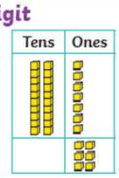
15 – 7 = 8

Methods

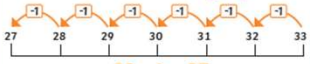
Add 2-digit and 1-digit



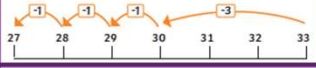
27 + 6 = 33

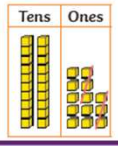


Subtract 1-digit from 2-digit



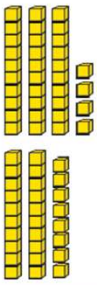
33 - 6 = 27





Add 2-digit numbers

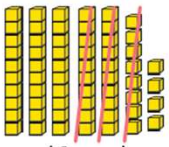
34 + 28 = 62



3 tens and 4 ones add 2 tens and 8 ones equals 5 tens and 12 ones becomes 6 tens and 2 ones

Subtract 2-digit numbers

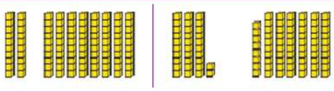
62 – 28 = 34



6 tens and 2 ones becomes 5 tens and 12 ones subtract 2 tens and 8 ones equals 3 tens and 4 ones

Addition and Subtraction Bonds to 100

2 + 8 = 10
so 20 + 80 = 100



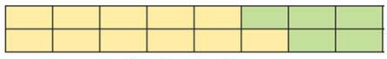
32 + 68 = 100
3 tens and 2 ones + 6 tens and 8 ones
= 9 tens and 10 ones = 10 tens =one hundred

Addition and Subtraction — Knowledge Organiser

Mental Methods

Compare Number Sentences

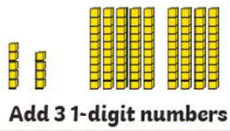
6 + 4 < 6 + 5



5 + 3 = 6 + 2

Related facts

5 + 4 = 9 so 50 + 40 = 90



Add 3 1-digit numbers

9 + 5 + 3 = 17

More or Less/ Add and Subtract 1s and 10s

Add and subtract 1s

24 + 1 = 25
24 + 2 = 26
24 + 3 = 27

24	25	26	27	28	29	30	31

37 – 1 = 36
37 – 2 = 35
37 – 3 = 34

There are 7 flowers in a vase. One more is added. Now there are 8 flowers.

10 More or Less

30	40	50	60	70	80
47	57	67	77	87	97

The ones digit stays the same.

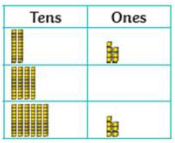
10 less	Number	10 more
1	11	21
34	44	54

Take care when crossing hundreds:

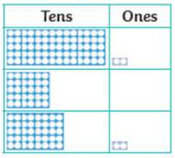
86	96	106	116

Add and Subtract 10s

10	30	50	70	90
3	33	63	93	



27
+ 40
67

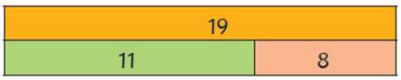


72
- 30
42

Crossing hundreds:

74	94	114	134

Check Calculations



19 – 8 = 11 can be checked using 8 + 11 = 19

32 + 5 = 82 x Spot that 5 tens have been added not 5 ones

28 – 26 = 12 x Spot that 28 and 26 are very close together, so difference won't be 12.

37 – 4 = 41 x Spot that if subtracting 4 the answer will be smaller.

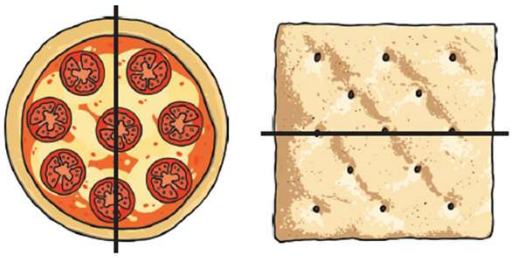
68 – 40 = 64 x Spot that 4 ones have been subtracted and not 4 tens.

Fractions: Stage 1

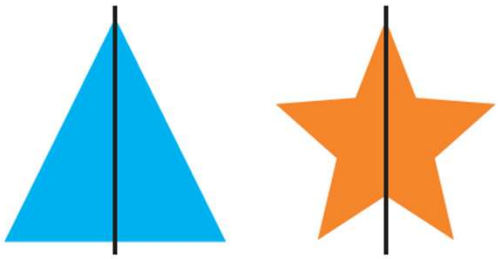
Fractions **Knowledge Organiser**

Half of a Shape

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

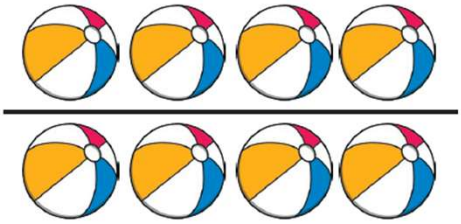


Each whole has **2 equal parts**.

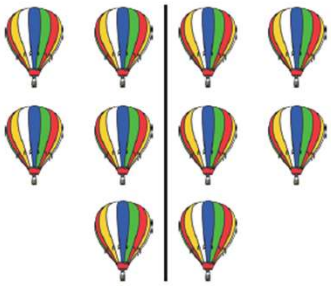


Half of a Group

There are 8 balls. Half of 8 is 4.



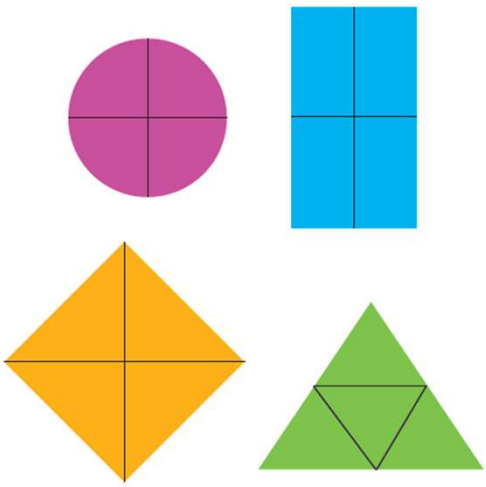
There are 10 balloons. Half of 10 is 5.



Fractions **Knowledge Organiser**

Quarter of a Shape

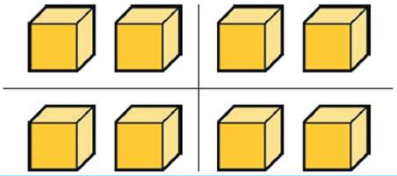
These shapes are split into **quarters**.



Each whole has **4 equal parts**.

Quarter of a Group

There are 8 blocks.
There are 2 in each quarter.
A quarter of 8 is 2.



Capacity and Fractions

The bottle is a quarter full.

The jar is half full.

Fractions: Stage 2

Fractions — Knowledge Organiser

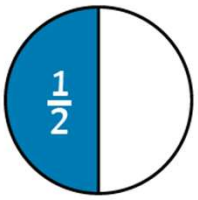
Key Vocabulary

- fraction
- part
- whole
- equal
- share
- half
- quarter
- third
- equivalent
- numerator
- denominator

Recognising Unit Fractions

Half

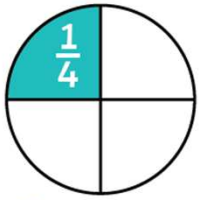
A whole split into two equal parts.

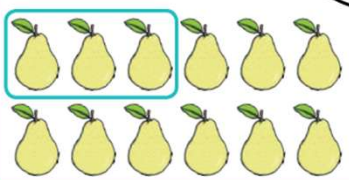


$\frac{1}{2}$ of 8 = 4

Quarter

A whole split into four equal parts.

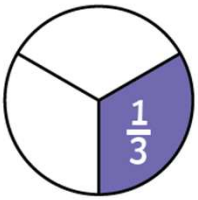


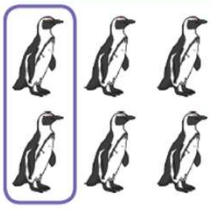


$\frac{1}{4}$ of 12 = 3

Third

A whole split into three equal parts.



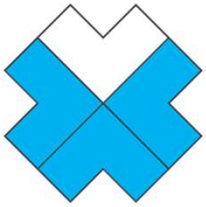


$\frac{1}{3}$ of 6 = 2

Non-unit Fractions

$\frac{2}{3}$

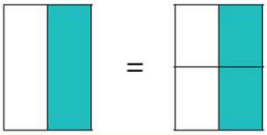
$\frac{3}{4}$



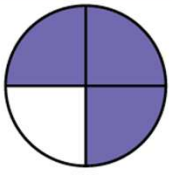
Fractions — Knowledge Organiser

Equivalent Fractions

$\frac{1}{2} = \frac{2}{4}$



Numerator and Denominator



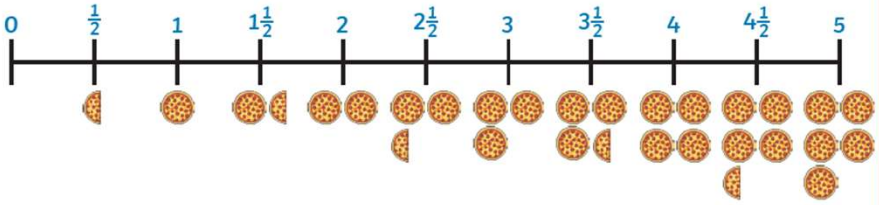
$\frac{3}{4}$

Numerator How many equal parts of the whole are needed?

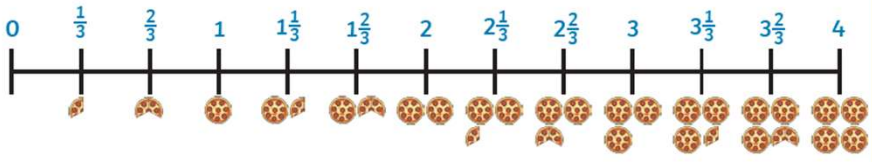
Denominator How many equal parts are in the whole?

Counting in Fractions

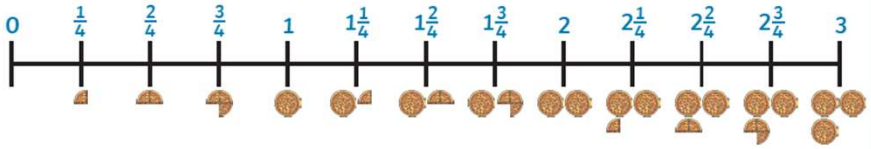
Halves



Thirds



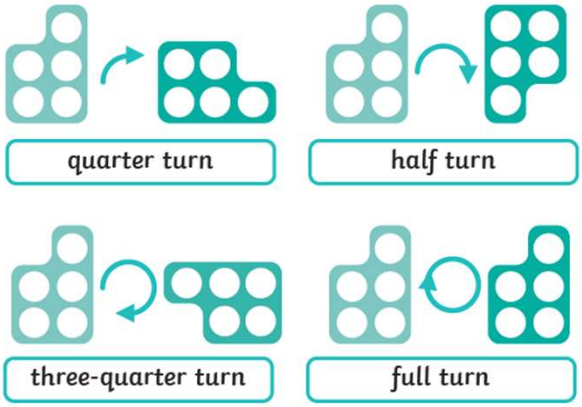
Quarters

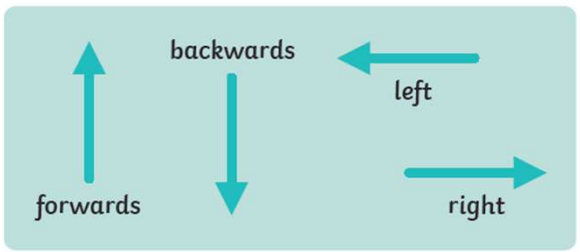


Movement and Space: Stage 1/2

Position and Direction — Knowledge Organiser

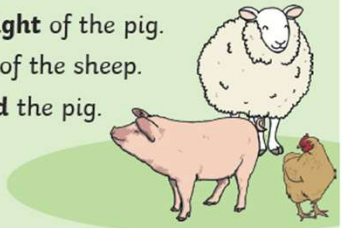
Describing Movement

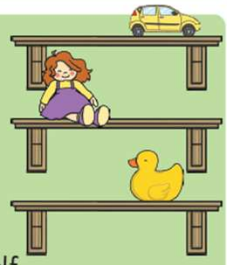




Describing Position

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.

Position and Direction — Knowledge Organiser

Key Vocabulary

- forwards
- backwards
- left
- right
- north
- south
- east
- west
- quarter turn
- half turn
- three-quarter turn
- clockwise
- anticlockwise
- pattern
- sequence

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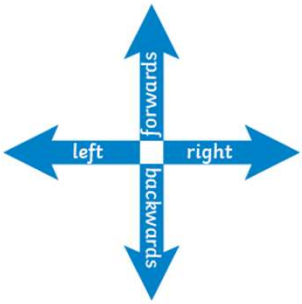
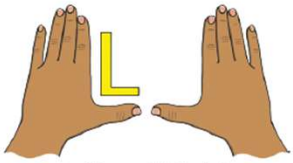
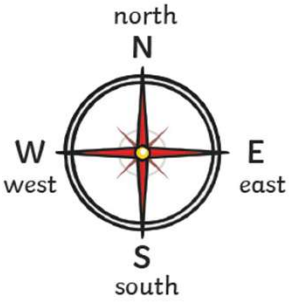
Describing Straight-Line Movement

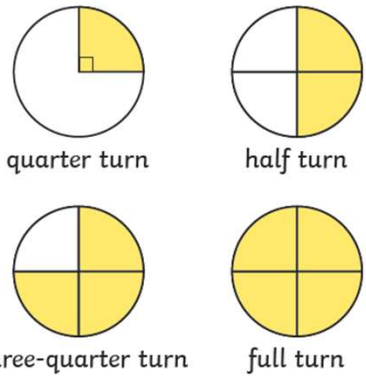




Left and Right
The hand that makes an **L** shape is the **left hand**.



Describing Turns



clockwise

anticlockwise

If the turn is in the same direction as the hands of a clock, it is **clockwise**.

If the turn is in the opposite direction to the hands of a clock, it is **anticlockwise**.

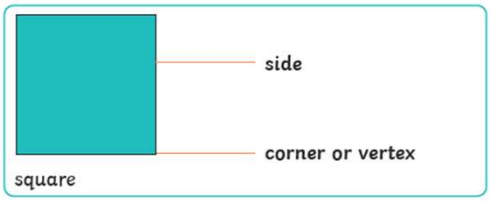
Properties of Shape: Stage 2

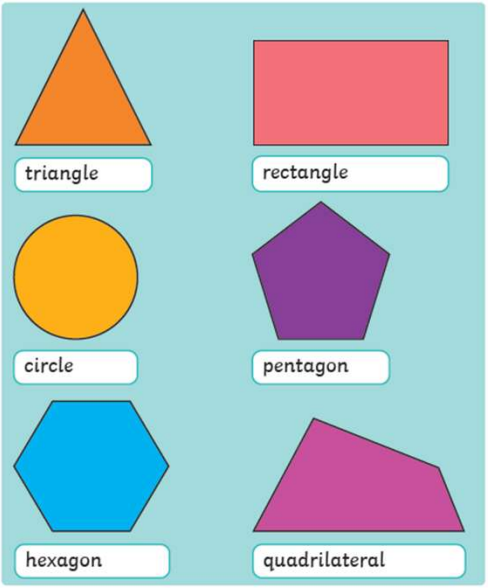
Geometry: Properties of Shape — **Knowledge Organiser**

Key Vocabulary

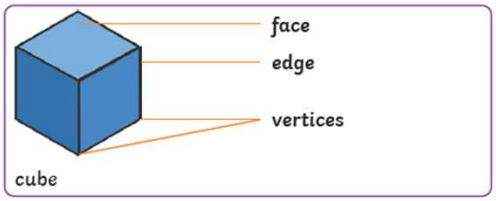
- two-dimensional (2D)
- three-dimensional (3D)
- flat
- solid
- corner
- apex
- vertex
- vertices
- side
- edge
- face
- curved
- straight
- round
- line of symmetry
- vertical
- pattern

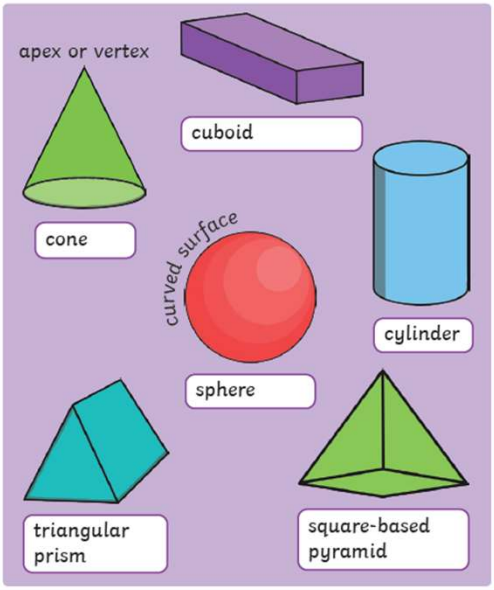
Recognise and Describe 2D Shapes





Recognise and Describe 3D Shapes

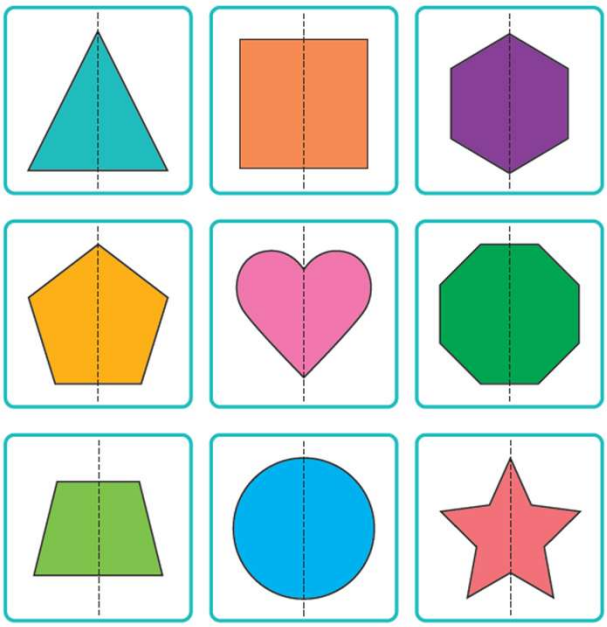




Geometry: Properties of Shape — **Knowledge Organiser**

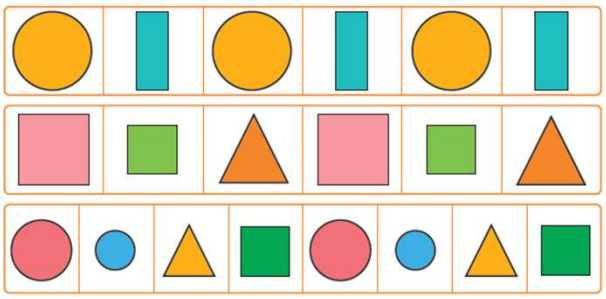
Lines of Symmetry

These 2D shapes have a vertical line of symmetry.

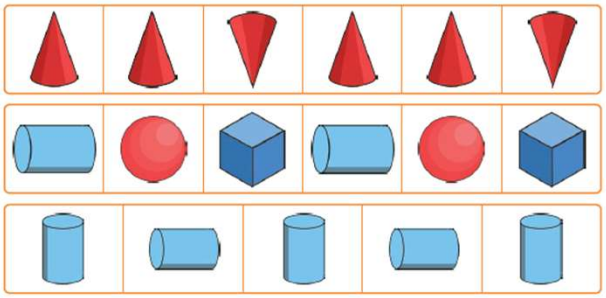


Repeating Shape Patterns

2D Patterns



3D Patterns



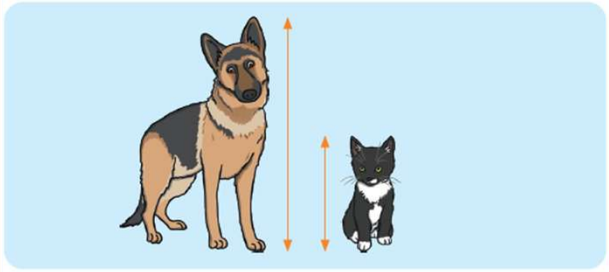
Length and Height: Stage 1

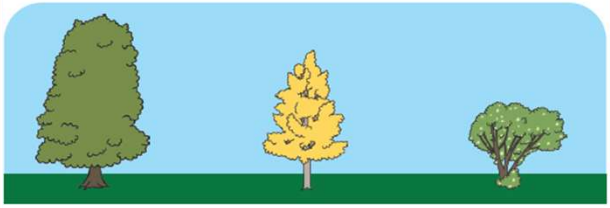
Length and Height — **Knowledge Organiser**

Height

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

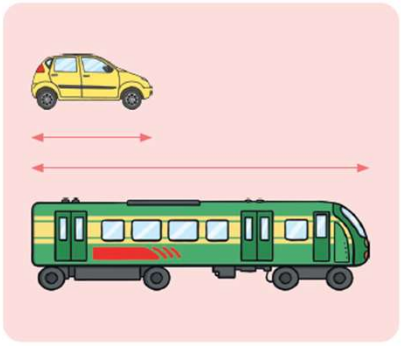
The cat is **shorter** than the dog.





tallest ..... **shortest**

Length

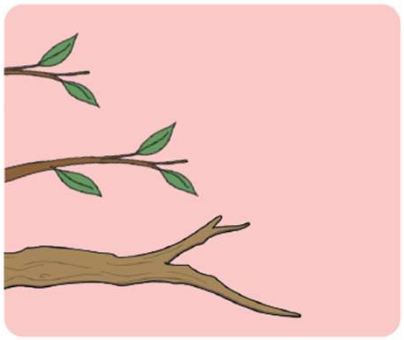


The car is **shorter** than the train.

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

shortest

longest



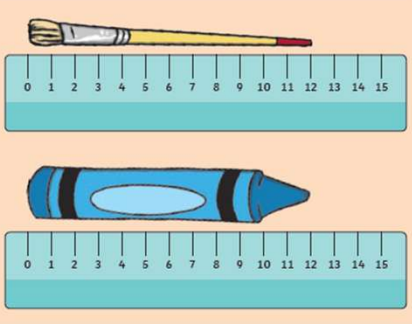
Length and Height — **Knowledge Organiser**

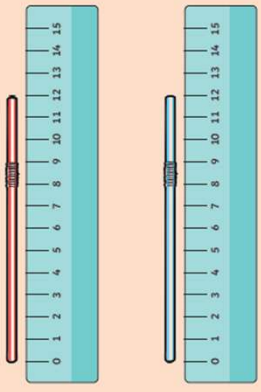
Length and Height

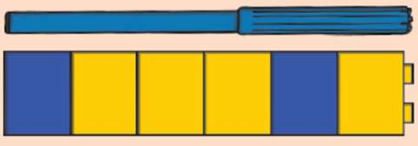
The same length.

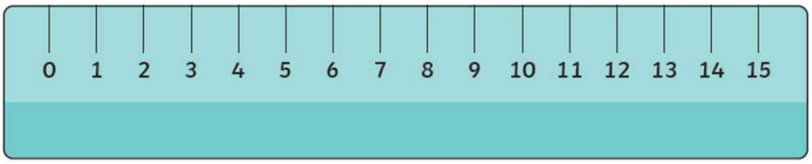
The same height.

This pen is 6 cubes long.









This ruler is to scale.

Length and Height: Stage 2

Length and Height — **Knowledge Organiser**

Key Vocabulary

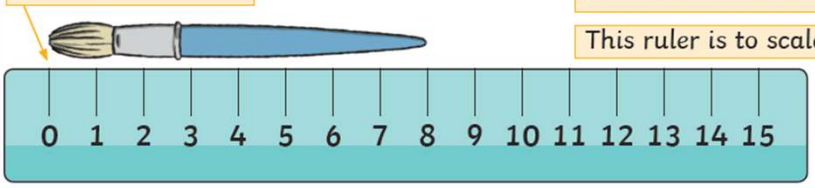
length
long
short
height
tall
measure
ruler
tape measure
metre stick
centimetre (cm)
metre (m)
compare
order

Measuring in Centimetres

Measure from zero.

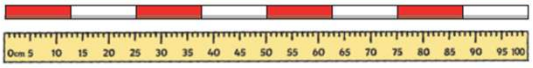
This ruler measures in **centimetres (cm)**. The paintbrush is 8cm long.

This ruler is to scale.



Measuring in Metres

We can measure the length or height of larger objects in **metres (m).**
The girl is 1m and 20cm tall.



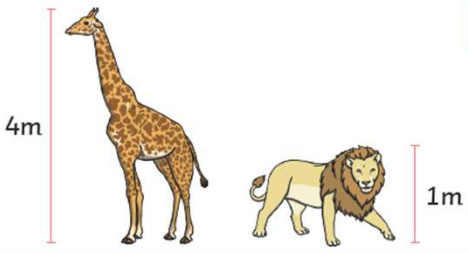
We can use metre sticks, trundle wheels or tape measures.
1 metre = 100 centimetres

Length and Height — **Knowledge Organiser**

Comparing Height

The giraffe is **taller** than the lion.
The lion is **shorter** than the giraffe.

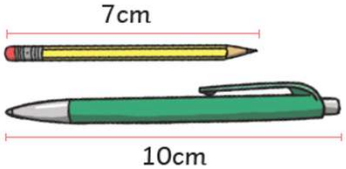
4m >1m



Comparing Length

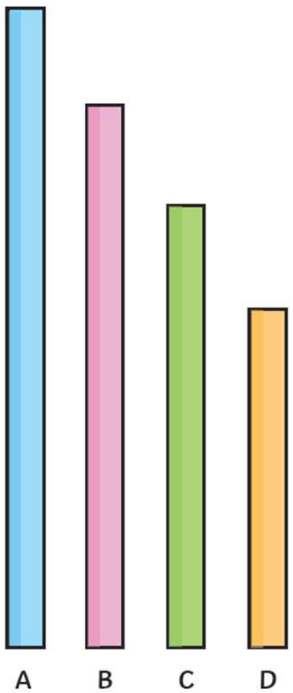
The pencil is **shorter** than the pen.
The pen is **longer** than the pencil.

7cm<10cm



Ordering Length

The straws are in order from **longest** to **shortest**.



A is the **longest**.
D is the **shortest**.
B is **longer** than C.
C is **shorter** than A.

Time: Stage 1

Time — **Knowledge Organiser**

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

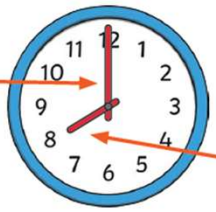
Months of the Year

January
February
March
April
May
June
July
August
September
October
November
December

Time — **Knowledge Organiser**

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.

Time: Stage 2

Time — Knowledge Organiser

Key Vocabulary

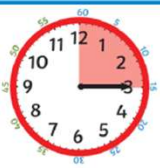
- time
- clock
- hours
- minutes
- hand
- o'clock
- half past
- quarter past
- quarter to
- five minutes
- duration
- shorter
- longer

O'Clock and Half Past

half past twelve	one o'clock	half past one	two o'clock	half past two	three o'clock	half past three	four o'clock
half past four	five o'clock	half past five	six o'clock	half past six	seven o'clock	half past seven	eight o'clock
half past eight	nine o'clock	half past nine	ten o'clock	half past ten	eleven o'clock	half past eleven	twelve o'clock

Past and To

o'clock



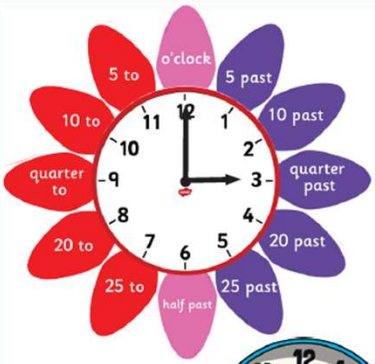
quarter past

half past

quarter to

Time — Knowledge Organiser

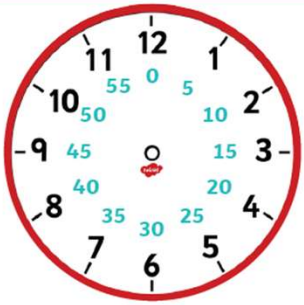
Telling Time to 5 Minutes



Hour Hand
The short hand points to the hour. If this hand is pointing between hours, it is either past the earlier hour or to the later hour.

Minute Hand
The long hand points to the minutes past or to the hour.

O'Clock and Half Past



There are **60 minutes** in an hour.

There are **24 hours** in a day.

Find Durations of Time

Start	Duration	End
		

20 minutes has passed.

Compare Durations of Time

 A swimming lesson	30 minutes	 A visit to the cinema	2 hours
 The time it takes to do 1 star jump	1 second	 A favourite TV programme	20 minutes
 A nice long walk	3 hours	 A week at school	5 days

Compare the time using the vocabulary 'longer' and 'shorter'.