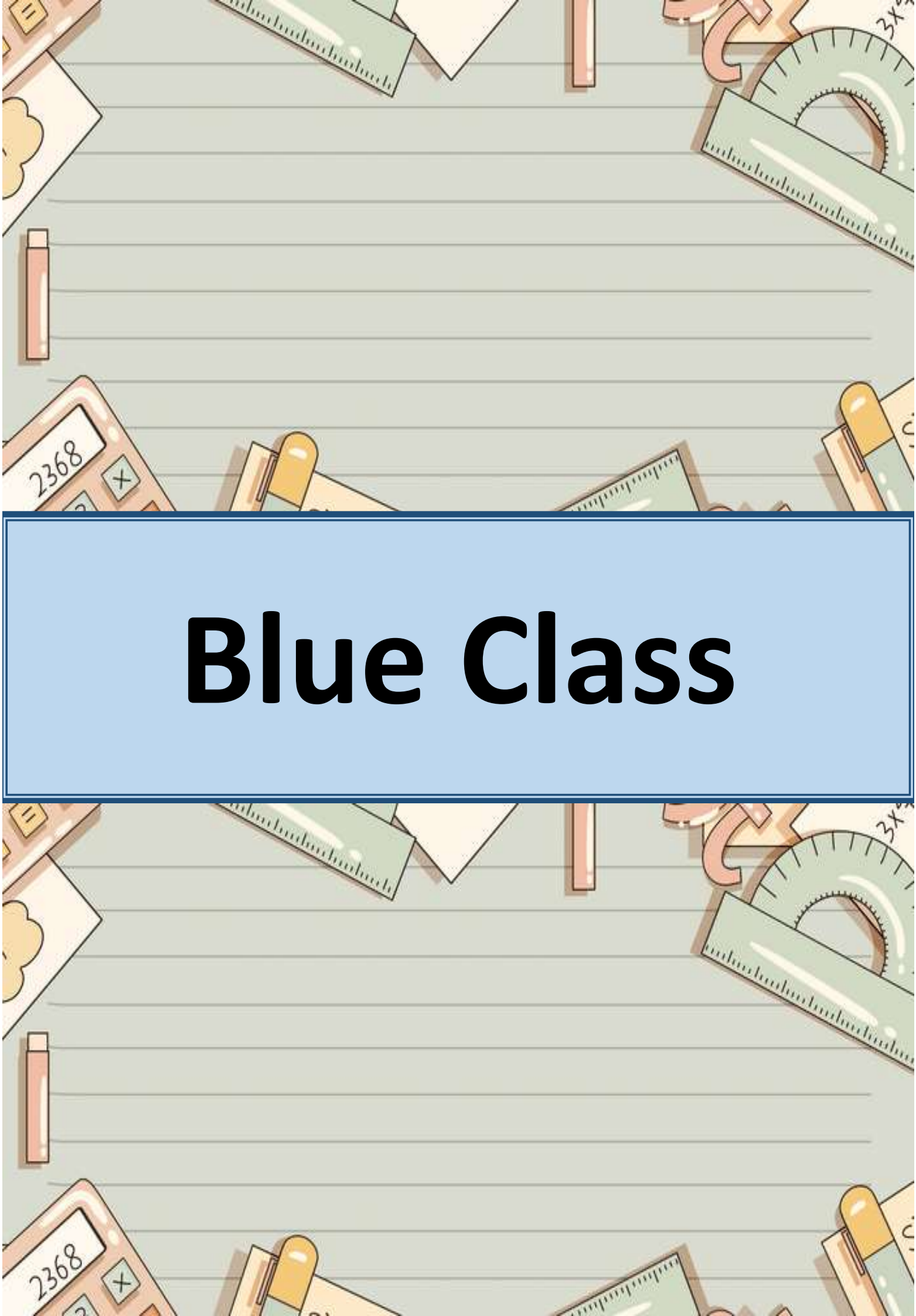

Blue Class

Number and Place Value: Stage 3

Number and Place Value — Knowledge Organiser

Key Vocabulary

- hundreds
- tens
- ones
- zero
- place value
- greater than
- less than
- order
- more
- less
- partition
- digit

3-Digit Numbers

256

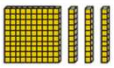
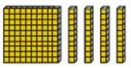
two hundred	fifty	six
		
200	50	6

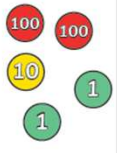
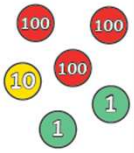
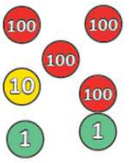
Counting in 4s and 8s

0	4	8	12	16	20	24	28	32	36	40

0	8	16	24	32	40	48	56	64	72	80

10 and 100 More or Less

Ten Less		Ten More
		
120	130	140

One Hundred Less		One Hundred More
		
212	312	412

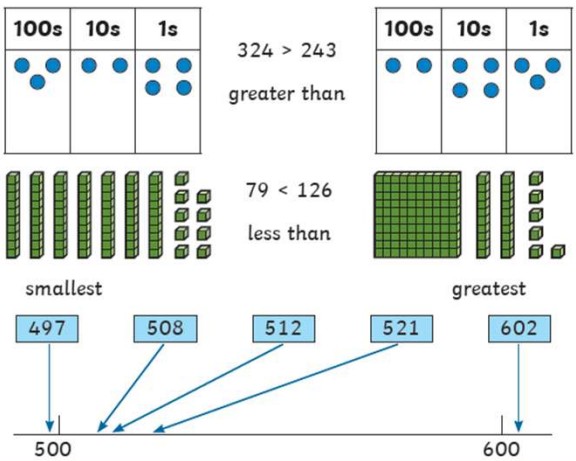
Counting in 50s and 100s

0	50	100	150	200	250	300	350	400	450	500

0	100	200	300	400	500	600	700	800	900	1000

Number and Place Value — Knowledge Organiser

Compare and Order

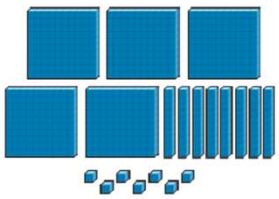


Represent Numbers to 1000

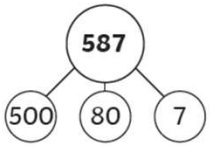
587

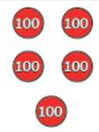
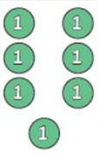
five hundred and eighty-seven

Hundreds	Tens	Ones
		

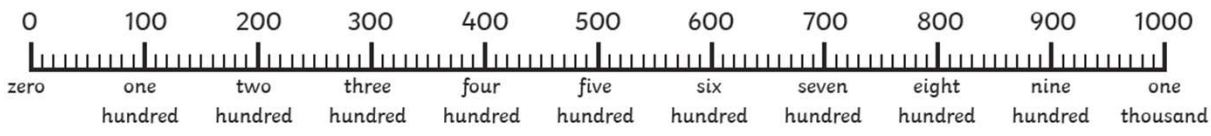


500 + 80 + 7



Hundreds	Tens	Ones
		

Numerals and Words to 1000



Number and Place Value: Stage 4

Number and Place Value — Knowledge Organiser

Key Vocabulary

- thousands
- hundreds
- tens
- ones
- zero
- place value
- greater than
- less than
- order
- round
- rounded to
- negative number
- partition
- digit
- Roman numeral

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Counting

Counting in 6s

0	6	12	18	24	30	36	42	48	54	60

Counting in 7s

0	7	14	21	28	35	42	49	56	63	70

Counting in 9s

0	9	18	27	36	45	54	63	72	81	90

Counting in 25s

0	25	50	75	100	125	150	175	200	225	250

Counting in 1000s

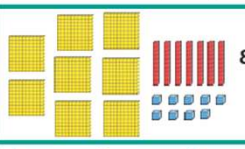
0	1000	2000	3000	4000	5000	6000	7000	8000	9000	10 000

Compare and Order

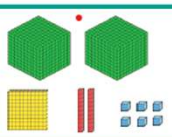
Th	H	T	O
● ●	●	●	● ●

4324 > 3243
greater than

Th	H	T	O
● ●	●	● ●	● ●



879 < 2126
less than



2497 | 2508 | 3012 | 3521 | 3530 | 4002

smallest — greatest

1000 More or 1000 Less

Number and Place Value — Knowledge Organiser

Negative Numbers

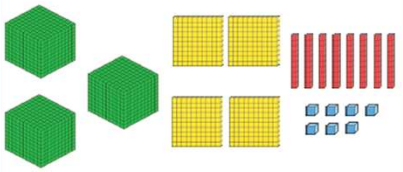
Represent 4-Digit Numbers

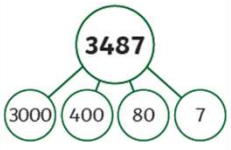
3487

three thousand, four hundred and eighty-seven

1000s	100s	10s	1s
III	IIII	IIII III	IIII II

Thousands	Hundreds	Tens	Ones
1000 1000 1000	100 100 100	10 10 10 10 10 10	1 1 1 1 1 1 1





Roman Numerals

one	1	I
five	5	V
ten	10	X
fifty	50	L
one hundred	100	C

XVIII = 18

XXIX = 29

LXXXIV = 84

Rounding

Look at the place value column to the right of the value you are rounding to. If this digit is a 4 or less, round down. If the digit is a 5 or more, round up.

Rounding to nearest 10

20	21	22	23	24	25	26	27	28	29	30

round down — round up

Rounding to the nearest 100

200	249	250	300

round down — round up

Rounding to the nearest 1000

2000	2499	2500	3000

round down — round up

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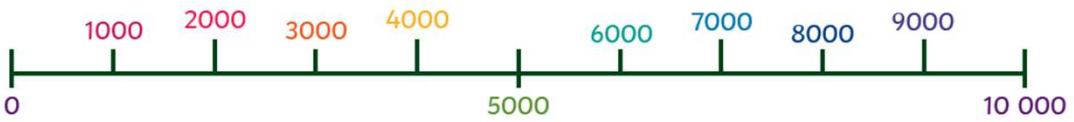

Addition and Subtraction: Stage 3

Addition and Subtraction — Knowledge Organiser

Key Vocabulary

add
total
plus
sum
more
altogether
difference
subtract
less
minus
take away
column addition
column subtraction
exchange
estimate
inverse operation
solve problems
number facts
place value

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Addition and Subtraction Methods

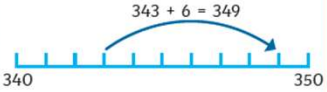
3-digit and 1-digit numbers

Not crossing 10s

268 – 4 = 264

Hundred	Ten	Ones
●●	●●●	●●●●

343 + 6 = 349



Crossing 10s (Exchanging)

324		
300	20	4
300	10	14

316 + 8 = 324

316	8

324 - 8 = 316

3-digit and 2-digit numbers

Add and subtract tens

Hundred	Ten	Ones
●●	●●●	●

451 + 3 tens = 481 (5 + 3 = 8)

451 – 4 tens = 411 (5 – 4 = 1)

Crossing 10s (Exchanging)

258 + 80 = 338

- Column method
- Count in 10s mentally
- Add 100, subtract 20

Crossing 10 and 100

368	368	368
+73	+73	+73
1	41	441
1	11	11

3 1	3 13 1	3 13 1
441	441	441
–73	–73	–73
8	68	368

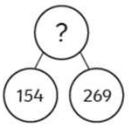
3-digit numbers

Not crossing

679 – 351 = 328

Hundred	Ten	Ones
●●●	●●●●	●●●●●

Crossing 10s (Exchanging)



269
+154
423
11

514	
268	?

4 10 1
5 1 4
- 268
246

Add and Subtract 100s

284 + 300 = 584

Hundred	Ten	Ones
■■	▮▮▮▮▮	▪
■■■		

Addition and Subtraction — Knowledge Organiser

Estimate

Estimate by dividing the hundred into 250 and 225.

Estimate 10s (330, 340) between 325 and 350.

Estimate 167 – 89

Use near numbers 170 – 90 = 80

Near numbers:

413	279	521	782
↓	↓	↓	↓
400	300	500	800

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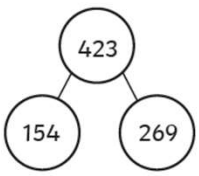
Check Answers

347	
273	74

347 – 74 = 273 can be checked using

273 + 74 = 347

This part whole shows the inverse calculations using these three numbers.



154 + 269 = 423	269 + 154 = 423
423 – 154 = 269	423 – 269 = 154

Addition and Subtraction: Stage 4

Addition and Subtraction — Knowledge Organiser

Key Vocabulary

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

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Addition and Subtraction Methods

Add 4-digit numbers

No exchange

$$\begin{array}{r} 5162 \\ +3427 \\ \hline 8589 \end{array}$$

Starting with the ones, add each column in turn.

One exchange

$$\begin{array}{r} 5162 \\ +3497 \\ \hline 8659 \\ \hline 1 \end{array}$$

Starting with the ones, add each column in turn. When adding
6 tens + 9 tens = 15 tens
= 1 hundred + 5 tens
Place 1 hundred under the hundreds answer and 5 tens in the answer.

Multiple exchanges

$$\begin{array}{r} 5864 \\ +3497 \\ \hline 9361 \\ \hline 111 \end{array}$$

Starting with the ones, add each column in turn. Exchange tens, hundreds and/ or thousands as required.

Subtract 4-digit numbers

No exchange

$$\begin{array}{r} 5789 \\ -\ 3421 \\ \hline 2368 \end{array}$$

Starting with the ones, subtract each column in turn.

One exchange

$$\begin{array}{r} {\scriptstyle 6\ 1} \\ 5749 \\ -\ 3471 \\ \hline 2278 \end{array}$$

Starting with the ones, subtract each column in turn. When subtracting 4 tens -7 tens, exchange 1 hundred to make:
14 tens – 7 tens = 7 tens

Multiple exchanges

$$\begin{array}{r} {\scriptstyle 6\ 13\ 1} \\ 5742 \\ -\ 3476 \\ \hline 2266 \end{array}$$

Starting with the ones, subtract each column in turn. Exchange tens, hundreds and/ or thousands as required.

Efficient subtraction

Calculate 6000 – 3617 = 2383

Addition and Subtraction — Knowledge Organiser

Add and Subtract 1s, 10s, 100s, 1000s

Here is the number 3124

Add 2 thousands = 5124
Add 5 hundreds = 5624
Subtract 2 tens = 5604
Add 5 ones = 5609

Here is the number 6708

Thousands	Hundreds	Tens	Ones
6	7	0	8

Add 3 thousands = 9708
Subtract 4 hundreds = 9308
Add 5 tens = 9358
Subtract 7 ones = 9351

Crossing ones, tens or hundreds

5**39**2 + **4** tens = 5**43**2 crossing tens
5126 – **6**00 = **45**26 crossing hundreds

When crossing ones, tens or hundreds, more than one digit will change.

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Round to Estimate

1635 + 386 = 2021
Round to the nearest ten
1640 + 390 = 2030
Round to the nearest hundred
1600 + 400 = 2000

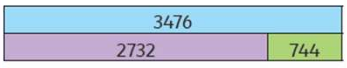
Both give a reasonable estimate, but rounding the nearest ten is more accurate.

9362 – 5729 = 3622
Round to the nearest hundred
9400 – 5700 = 3700
Round to the nearest thousand
9000 – 6000 = 3000

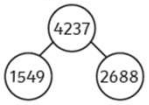
Rounding to the nearest hundred is much more accurate in this case.

Checking Strategies

Using Inverse



3476 – 744 = 2732 can be checked using
2732 + 744 = 3476
This part whole shows the inverse calculations using these three numbers.



1549 + 2688 = 4237	2688 + 1549 = 4237
4237 – 1549 = 2688	4237 – 2688 = 1549

Adding in a different order

420 + 372 + 280 =

Change to

420 + 280 + 372 =

As 420 + 280 = 700

(because 42 + 28 = 70)

420 + 280 + 372 = 700 + 372 = 1072

Fractions: Stage 3

Fractions — Knowledge Organiser

Key Vocabulary

- numerator
- denominator
- unit fraction
- non-unit fraction
- equivalent
- halves
- thirds
- quarters
- fifths
- sixths
- eighths
- tenths
- decimal tenths

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Recognising Fractions

$\frac{3}{8}$

Numerator How many equal parts of the whole are needed?

Denominator How many equal parts are in the whole?

Comparing Fractions

$\frac{1}{3}$ Less than $\frac{2}{3}$

$\frac{4}{5}$ Greater than $\frac{3}{5}$

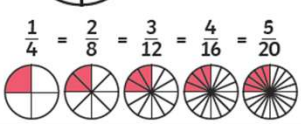
Equivalent Fractions

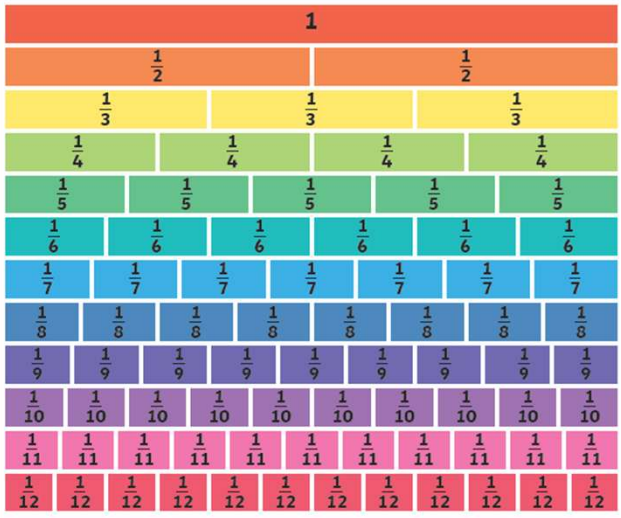
$\frac{1}{2}$ is equal to...

$\frac{1}{2} = \frac{2}{4} = \frac{3}{6} = \frac{4}{8} = \frac{5}{10} = \frac{6}{12}$

$\frac{1}{4}$ is equal to...

$\frac{1}{4} = \frac{2}{8} = \frac{3}{12} = \frac{4}{16} = \frac{5}{20}$





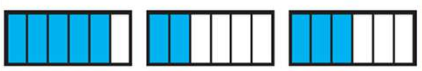
Fractions — Knowledge Organiser

Add and Subtract Fractions

$\frac{2}{5} + \frac{1}{5} = \frac{3}{5}$

$\frac{3}{7} + \frac{2}{7} = \frac{5}{7}$

$\frac{5}{6} - \frac{2}{6} = \frac{3}{6}$



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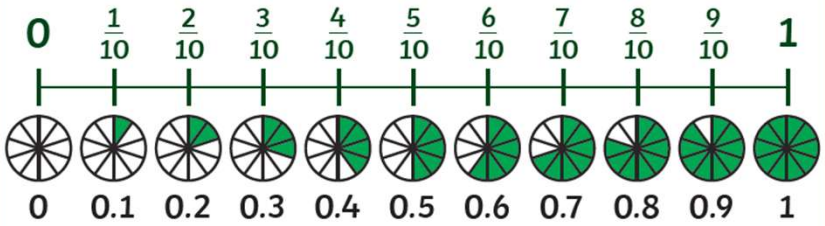
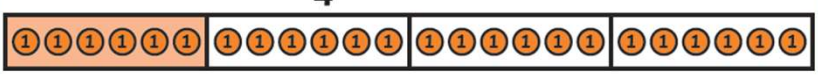
Tenths



Fractions of Amounts

$\frac{1}{4}$ of 24 = 6



$\frac{1}{3}$ of 72 = 24

$\frac{2}{5}$ of 40 = 16

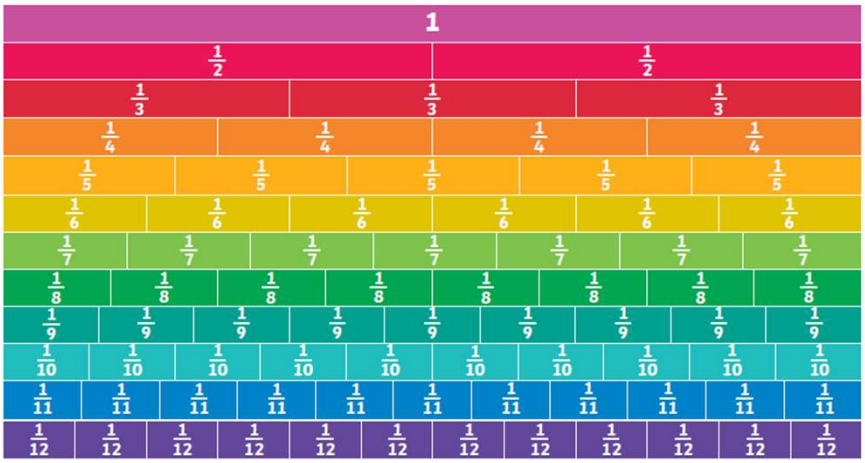
Fractions: Stage 4

Fractions — **Knowledge Organiser**

Key Vocabulary

- numerator
- denominator
- unit fraction
- non-unit fraction
- equivalent
- quantities
- whole
- halves
- thirds
- quarters
- fifths
- sixths
- sevenths
- eighths
- ninths
- tenths
- elevenths
- twelfths
- quantities

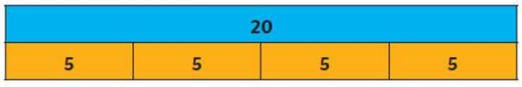
Fraction Families



Fractions of Quantities

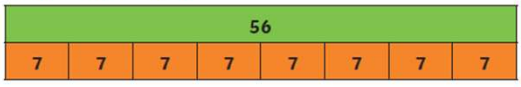
To find a fraction of a number, divide by the denominator and multiply by numerator.

To find quarters of 20:



$\frac{1}{4}$ of 20 = 5 $\frac{2}{4}$ of 20 = 10 $\frac{3}{4}$ of 20 = 15 $\frac{4}{4}$ of 20 = 20

To find eighths of 56:



$\frac{1}{8}$ of 56 = 7 $\frac{2}{8}$ of 56 = 14 $\frac{3}{8}$ of 56 = 21 $\frac{4}{8}$ of 56 = 28

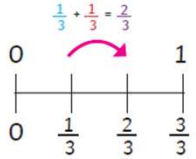
$\frac{5}{8}$ of 56 = 35 $\frac{6}{8}$ of 56 = 42 $\frac{7}{8}$ of 56 = 49 $\frac{8}{8}$ of 56 = 56

Fractions — **Knowledge Organiser**

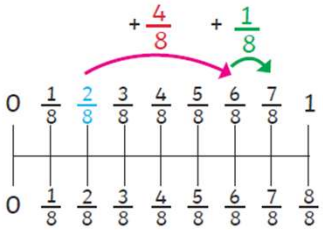
Adding Fractions

Fractions can be added when the denominators are the same.

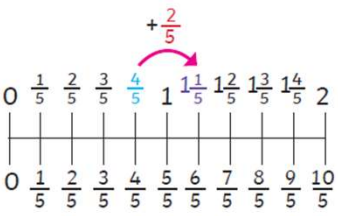
$\frac{1}{3} + \frac{1}{3} = \frac{2}{3}$



$\frac{2}{8} + \frac{4}{8} + \frac{1}{8} = \frac{7}{8}$



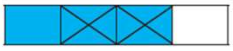
$\frac{4}{5} + \frac{2}{5} = \frac{6}{5}$ or $1\frac{1}{5}$

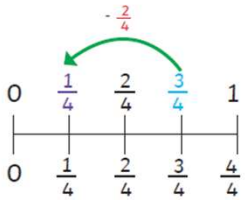


Subtracting fractions

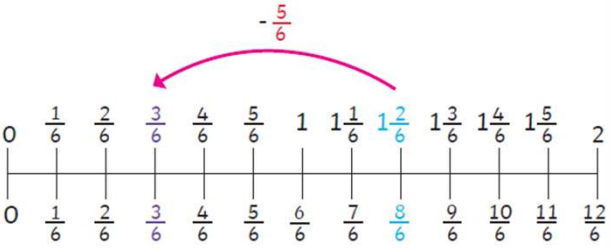
Fractions can be subtracted when the denominators are the same.

$\frac{3}{4} - \frac{2}{4} = \frac{1}{4}$





$\frac{8}{6} - \frac{5}{6} = \frac{3}{6}$



Multiplication and Division: Stage 3

Multiplication and Division — Knowledge Organiser

Key Vocabulary

- times tables
- multiply by
- divide by
- array
- fact families
- regrouping

Multiplication and Division Facts (3, 4 and 8 multiplication tables)

x	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

3 x Tables

1 × 3 = 3	3 ÷ 3 = 1
2 × 3 = 6	6 ÷ 3 = 2
3 × 3 = 9	9 ÷ 3 = 3
4 × 3 = 12	12 ÷ 3 = 4
5 × 3 = 15	15 ÷ 3 = 5
6 × 3 = 18	18 ÷ 3 = 6
7 × 3 = 21	21 ÷ 3 = 7
8 × 3 = 24	24 ÷ 3 = 8
9 × 3 = 27	27 ÷ 3 = 9
10 × 3 = 30	30 ÷ 3 = 10
11 × 3 = 33	33 ÷ 3 = 11
12 × 3 = 36	36 ÷ 3 = 12

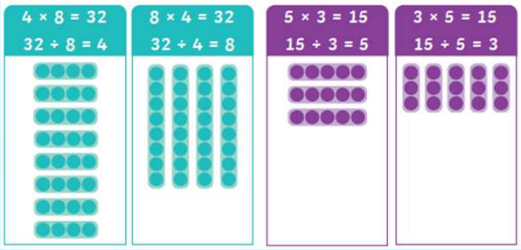
4 x Tables

1 × 4 = 4	4 ÷ 4 = 1
2 × 4 = 8	8 ÷ 4 = 2
3 × 4 = 12	12 ÷ 4 = 3
4 × 4 = 16	16 ÷ 4 = 4
5 × 4 = 20	20 ÷ 4 = 5
6 × 4 = 24	24 ÷ 4 = 6
7 × 4 = 28	28 ÷ 4 = 7
8 × 4 = 32	32 ÷ 4 = 8
9 × 4 = 36	36 ÷ 4 = 9
10 × 4 = 40	40 ÷ 4 = 10
11 × 4 = 44	44 ÷ 4 = 11
12 × 4 = 48	48 ÷ 4 = 12

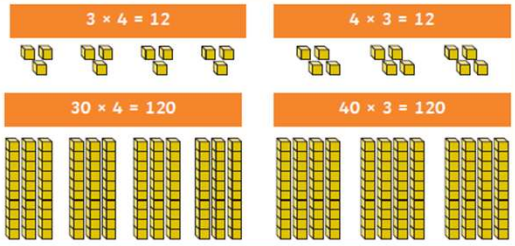
8 x Tables

1 × 8 = 8	8 ÷ 8 = 1
2 × 8 = 16	16 ÷ 8 = 2
3 × 8 = 24	24 ÷ 8 = 3
4 × 8 = 32	32 ÷ 8 = 4
5 × 8 = 40	40 ÷ 8 = 5
6 × 8 = 48	48 ÷ 8 = 6
7 × 8 = 56	56 ÷ 8 = 7
8 × 8 = 64	64 ÷ 8 = 8
9 × 8 = 72	72 ÷ 8 = 9
10 × 8 = 80	80 ÷ 8 = 10
11 × 8 = 88	88 ÷ 8 = 11
12 × 8 = 96	96 ÷ 8 = 12

Write and Calculate Mathematical Statements



Related Calculations



Multiplication and Division — Knowledge Organiser

Written Multiplication Methods - No Regrouping

Tens	Ones

23 × 3 = 69

	T	O
	2	3
×		3
	6	9

Written Multiplication Methods - With Regrouping

Tens	Ones

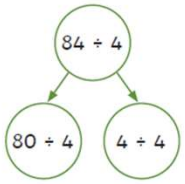
24 × 4 = 96

	T	O
	2	4
×		4
	9	6
	1	

Written Division Methods - No Regrouping

Tens	Ones

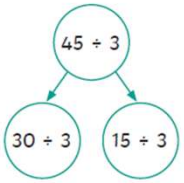
	2	1
4	8	4



Written Division Methods - With Regrouping

Tens	Ones

	1	5
3	4	15



Multiplication and Division: Stage 4

Multiplication and Division — Knowledge Organiser

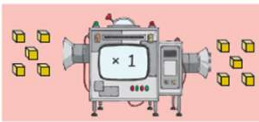
Key Vocabulary

- multiply
- groups of
- lots of
- times
- divide
- share
- remainder
- factor
- multiple
- product

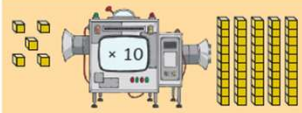
Multiplication and Division Facts

×	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

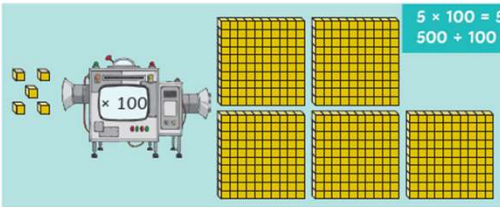
Use Place Value to Multiply and Divide Mentally



5 × 1 = 5
5 ÷ 1 = 5

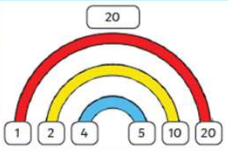


5 × 10 = 50
50 ÷ 10 = 5



5 × 100 = 500
500 ÷ 100 = 5

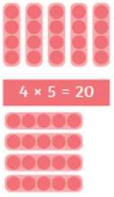
Factor pairs and Commutativity



The factors of 20 are 1, 2, 4, 5, 10 and 20.

The factor pairs are:

1 and 20 | 2 and 10 | 4 and 5



Multiply Using Formal Written Methods

Th	H	T	O	
	5	4	3	
×			4	
		1	2	(4 × 3)
	1	6	0	(4 × 40)
2	0	0	0	(4 × 500)
2	1	7	2	

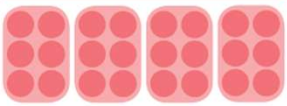
Th	H	T	O
	5	4	3
×			4
2	1	7	2
	1	1	

Remember to move any regrouped numbers into the next column. After the next multiplication, add the regrouped number to the answer.

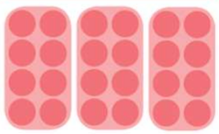
Multiplication and Division — Knowledge Organiser

Mental Calculations for Solving Problems

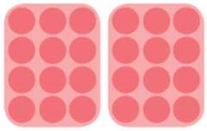
(2 × 3) × 4 = 24

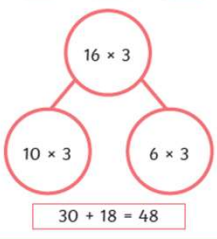


(2 × 4) × 3 = 24



(3 × 4) × 2 = 24





30 + 18 = 48

Integer Scaling Problems

10 pencils

10 x 4 = 40 pencils

75g

75g × 2 = 150g

Short Division with Exact Answers

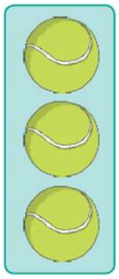
There are 69 tennis balls packed in tubes of 3.

There are 23 tubes altogether.

69 ÷ 3 = 23

$$3 \overline{)\,69}\quad 23$$

69		
23	23	23



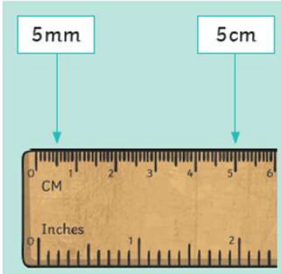
Length and perimeter: Stage 3

Length and Perimeter — **Knowledge Organiser**

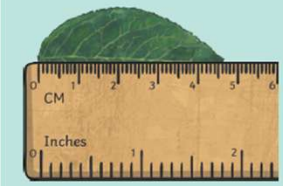
Key Vocabulary

metre (m)
centimetre (cm)
millimetre (mm)
height
length
width
perimeter
further/furthest
higher/highest
longer/longest
shorter/shortest
taller/tallest

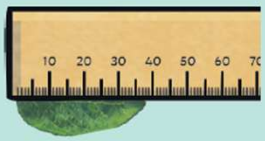
Measure Length



10mm = 1cm



4cm 6mm

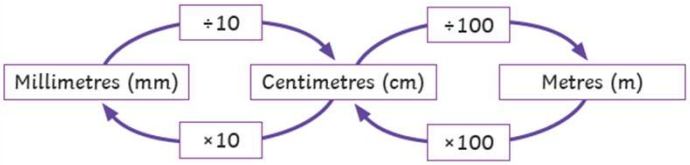


38mm

Equivalent Length

100 centimetres = 1 metre

10 millimetres = 1 centimetre



317cm	
300cm	17cm
3m	17cm
3m 17cm	

Length and Perimeter — **Knowledge Organiser**

Compare Lengths

6mm < 6cm
6cm = 60mm
6mm is shorter than 6cm

320cm > 2m 60cm
320cm > 200cm + 60cm
320cm is longer than 2m 60cm

98mm < 12cm 3mm
98mm < 120mm + 3mm
98mm is shorter than 12cm 3mm

Add and Subtract Lengths

14cm + 19cm = 33cm
8cm 2mm + 16mm =
98mm or 9cm 8mm

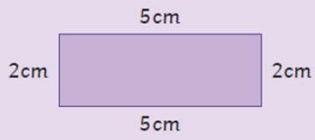
?	
8cm 2mm	16mm
82mm	16mm

6m – 2m 28cm
6m – 2m = 4m
4m – 28cm = 3m 72cm

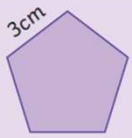
6m	
2m 28cm	?

Perimeter

..... = perimeter



5cm + 2cm + 5cm + 2cm = 14cm



3cm + 3cm + 3cm + 3cm = 15cm

perimeter = 20cm
6cm + 6cm = 12cm
20cm – 12cm = 8cm
8cm ÷ 2 = 4cm

Area and Perimeter: Stage 3

Area and Perimeter — Knowledge Organiser

Keywords

- area
- perimeter
- centimetres
- metres
- squares
- distance
- millimetres
- kilometres
- length
- width
- rectilinear
- right angle

Area and Perimeter

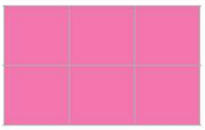
Area is the amount of space inside a 2D shape.

Perimeter is the total **distance** around the outside of a 2D shape.

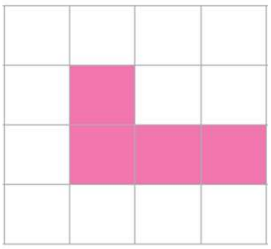
Measuring Area

We can count **squares** to find the **area** of a **rectilinear** shape.

Area = 1 square



Area = 6 squares



Area = 4 squares

Units of Measure for Perimeter

km	1 **kilometre** = 1000 **metres**
m	1 **metre** = 100 **centimetres**
cm	1 **centimetre** = 10 **millimetres**
mm	

Rectilinear Figures

A **rectilinear** figure is a 2D shape whose sides all meet at **right angles** (90°).

Money: Stage 3

Money — **Knowledge Organiser**

Key Vocabulary

- amount
- change
- coin
- combinations
- convert
- note
- pence
- penny
- pounds
- value

UK Coins

1p	2p	5p	10p	20p	50p	£1	£2
one penny coin	two pence coin	five pence coin	ten pence coin	twenty pence coin	fifty pence coin	one pound coin	two pound coin

UK Notes

£5	£10	£20	£50
five pound note	ten pound note	twenty pound note	fifty pound note

Pounds and Pence

£3 and 25 pence

£52 and 13 pence

Convert Pounds and Pence

120 pence
100 pence is £1
120 pence is £1 and 20 pence.

Money — **Knowledge Organiser**

Adding Amounts

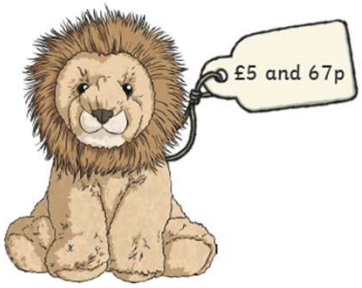
?	
£1 and 60p	

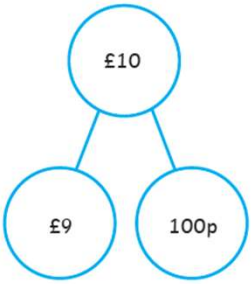
£1 and 60p + £1 and 52p
There is £2 and 112p.
112p is £1 and 12p
Altogether there is £3 and 12p.

Subtracting Amounts

£2 and 35p - £1 and 80p

Giving Change





£9 - £5 = £4
100p – 67p = 33p
£4 and 33p change

Statistics: Stage 3

Statistics — Knowledge Organiser

Key Vocabulary

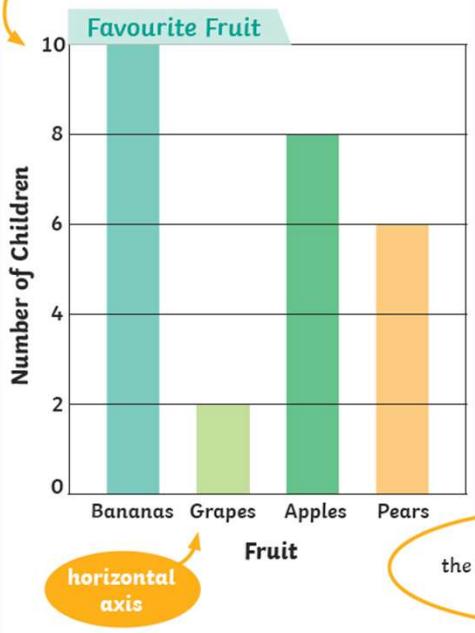
- data
- pictogram
- symbol
- bar chart
- horizontal axis
- vertical axis
- axes
- scale
- intervals
- table
- interpret

Bar Charts

Bars are used to show the data in each category. There must be a gap between each bar. Bar charts can have different scales.

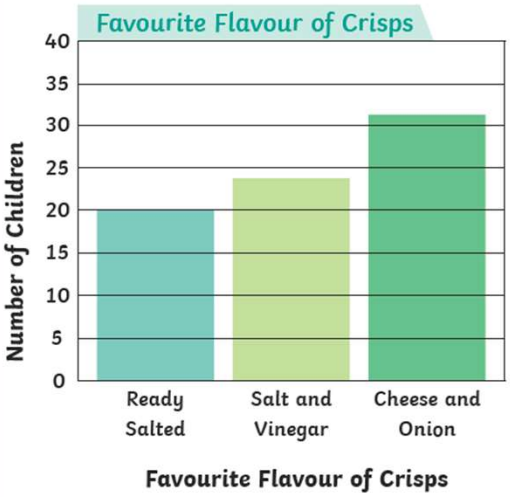
vertical axis

The scale on this bar chart counts in twos.



horizontal axis

The scale on this bar chart counts in fives.



The scale on the bar chart depends on the range of the data.

Statistics — Knowledge Organiser

Tables

In order to understand the data presented in a table, you must read the table's title and the headings. Remember to always look at the heading above each piece of information.

title

Table to Show Ticket Prices at a Local Cinema

heading

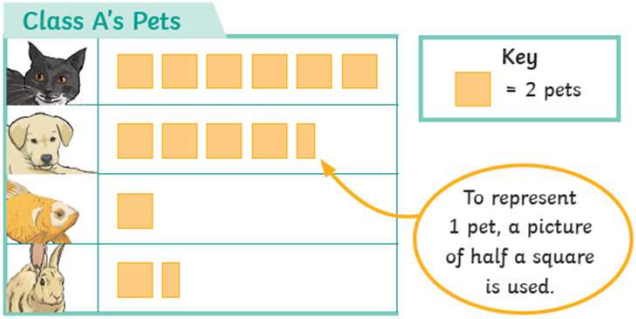
Ticket Type	Weekday Price	Weekend Price
Adult	£6	£7.50
Child	£4	£4.50
Student	£5.50	£6

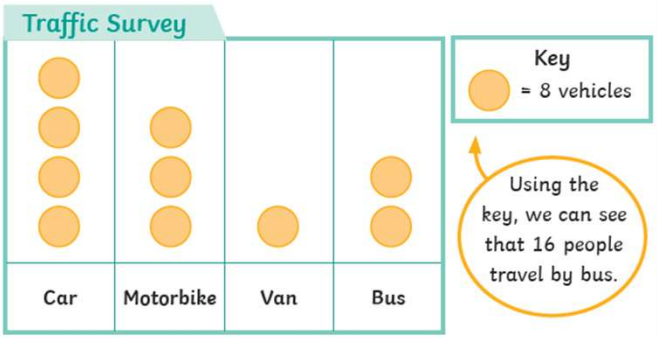
information

Using the table, we can see the cost of an adult and a child visiting the cinema on a Monday would be £10.

Pictograms

Pictograms use pictures or symbols to represent data. The key shows what each symbol represents. This pictogram uses 1 symbol to represent 2 pets.





Statistics: Stage 4

Statistics — Knowledge Organiser

Key Vocabulary

- bar chart
- pictogram
- frequency table
- tally chart
- discrete data
- continuous data
- time graph
- sum
- difference
- comparison
- interpret

Discrete and Continuous Data

Data that is counted in whole numbers is discrete. In **discrete data**, values between whole numbers cannot be counted.

Data that is measured and therefore can take on infinite values is continuous. In **continuous data**, values between whole numbers can be counted.

Frequency Tables

Tally marks are used to help count things. Each vertical line represents one unit. The fifth tally mark goes down across the first four to make it easier to count.

The frequency column is completed after all the data has been collected.

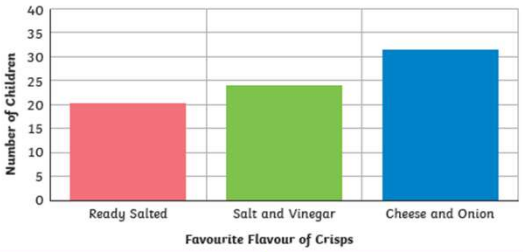
Eye Colour	Tally	Frequency
brown	𝍸 |	6
blue	𝍸 |||	8
green	|||	3
grey	||||	4
hazel	𝍸	5

Bar Charts

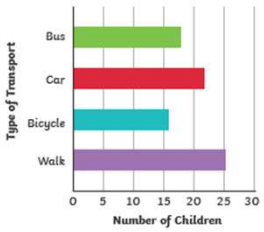
A bar chart has a horizontal axis and a vertical axis. Bars are used to show the data of each category. There must be a gap between each bar.

The scale of the bar chart is based on the range of data.

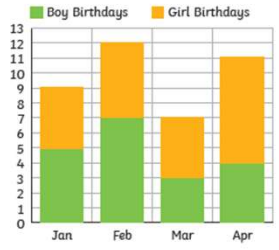
The scale on this bar chart counts in fives.



The bars are horizontal on this bar chart.



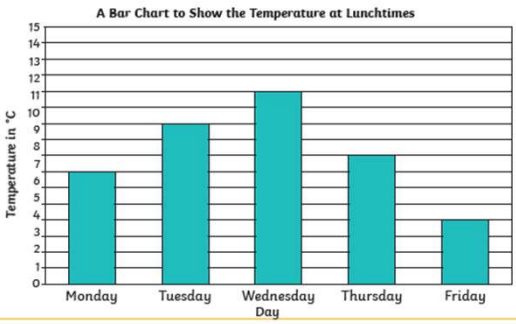
Two sets of data are shown on this stacked bar chart.

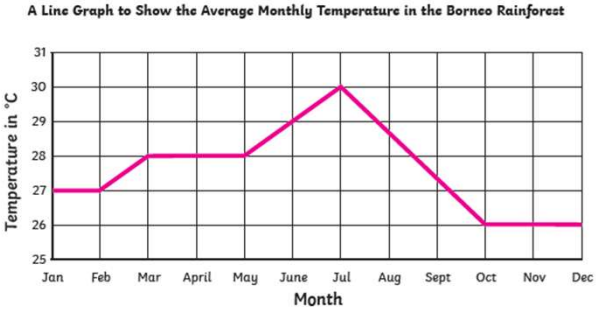


Statistics — Knowledge Organiser

Time Graphs

Time graphs show how data changes over time.





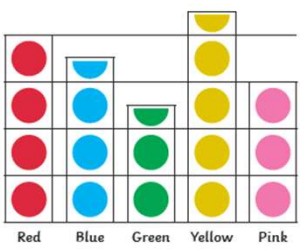
Pictograms

Pictograms use symbols or pictures to represent data.

This pictogram uses one symbol to represent two children.

Using this key, we can see that seven children prefer the colour blue.

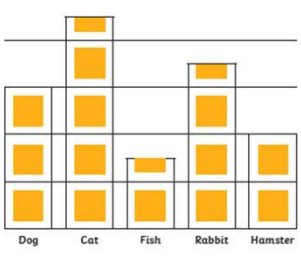
Class 10's Favourite Colours



◯ = 2 Children

This pictogram uses one picture to represent four children. Using this key, we can see that six children have a pet fish.

Class 10's Pets



▭ = 4 Children