



Year 2

Power Maths Books A, B and C
Knowledge organisers





Year 2

Power Maths Book A
Knowledge organisers
Units 1 - 5



Unit 1

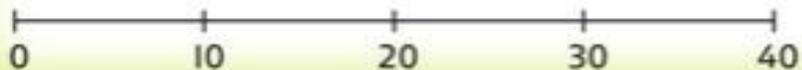
Numbers to 100



In this unit we will ...

- ⚡ Count numbers to 100
- ⚡ Use different ways to show numbers to 100
- ⚡ Use place value grids to make and compare numbers
- ⚡ Count in 10s
- ⚡ Compare and order numbers to 100
- ⚡ Count in 2s and 5s

Do you remember how to use this to find how many there are?



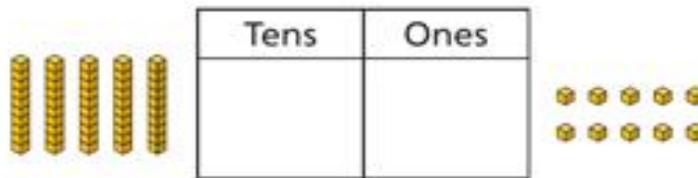
Here are some maths words you have seen before. Which ones can you remember?

tens ones
 place value grid partition more
 fewer fewest
 greatest smallest

We can use

Tens	Ones

 to show a number. Use it to show 43.



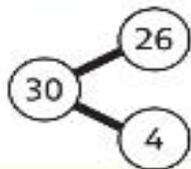
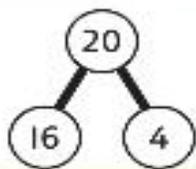
Unit 2

Addition and subtraction 1



- In this unit we will ...
- ⚡ Use related number facts
 - ⚡ Compare number sentences
 - ⚡ Make number bonds to 100
 - ⚡ Add and subtract ones and tens
 - ⚡ Add a 2-digit and a 1-digit number
 - ⚡ Subtract a 1-digit number from a 2-digit number

We have used this before. What is the same? What is different?



We need some maths words. Are any of these new?

fact family

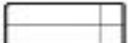
number sentence

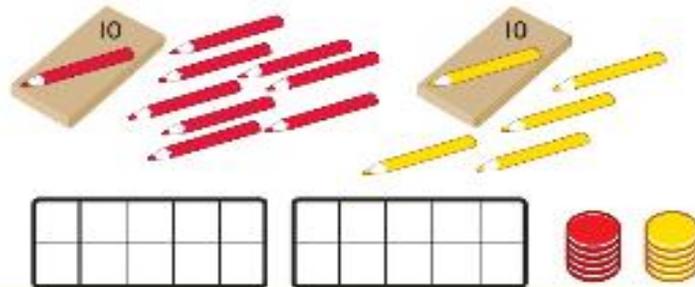
number bonds

column

10 more

10 less

How many  are there altogether? You can use  and  to find the total.



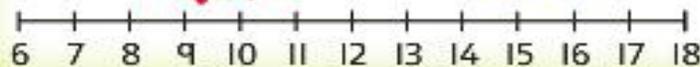
Unit 3

Addition and subtraction 2

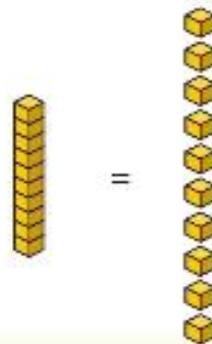


- In this unit we will ...
- ⚡ Add two 2-digit numbers
 - ⚡ Subtract 2-digit numbers
 - ⚡ Add three 1-digit numbers
 - ⚡ Solve word problems

How many more red  are there than yellow  ?
Use this to find out.



This will help! Use it to find the total of $16 + 7$.



We will need some maths words.
Do you remember them?

total tens ones
subtract difference
bar model represent

Unit 4

Money



In this unit we will ...

- ⚡ Count coins and notes
- ⚡ Compare different amounts of money
- ⚡ Find different ways to make the same amount
- ⚡ Work out the amount of change
- ⚡ Solve two-step problems involving money

Do you remember these coins?



We will need some maths words and signs. Which have you met before?

pounds (£)

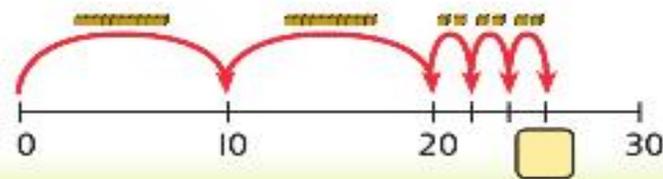
pence (p)

coins

notes

change

We can use $0 \ 1 \ 2 \ 3 \ 4 \ 5 \ 6 \ 7 \ 8 \ 9 \ 10$ and  to help us. How much money is there here?



Unit 5

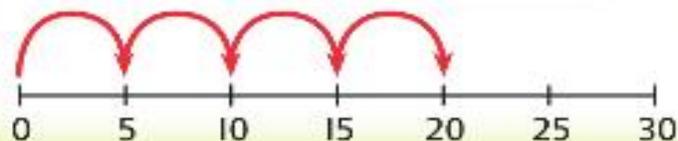
Multiplication and division 1



In this unit we will ...

- ⚡ Decide if groups are equal
- ⚡ Form multiplication sentences
- ⚡ Use arrays
- ⚡ Practise the 2, 5 and 10 times-tables
- ⚡ Solve multiplication word problems

We use these a lot, don't we? You can use a number line for multiplication as well. Can you find 4×5 using the number line?



We will need some maths words and signs. Which of these have you seen before?

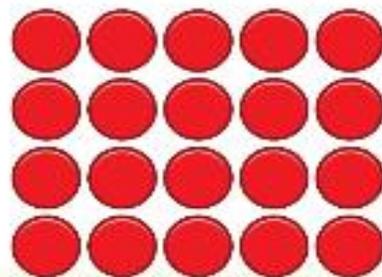
equal groups

multiplication (\times)

times-tables

times

We can use an array to help us when we multiply. Can you use 20 counters to make this array? Can you move the counters to make a different array?





Year 2

Power Maths Book B
Knowledge organisers
Units 6 - 10



Unit 6

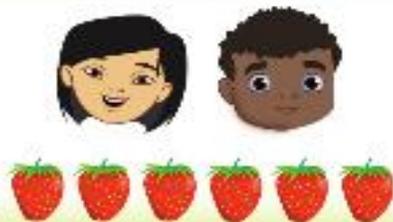
Multiplication and division 2



In this unit we will ...

- ⚡ Divide by 2
- ⚡ Learn about odd and even numbers
- ⚡ Divide by 5 and 10
- ⚡ Divide by grouping and by sharing
- ⚡ Use related multiplication facts to solve division problems

You have used equal sharing before. How would you share 6 🍓 between 2 people?



We will need some maths words. Have you used some of these words before?

divide (\div)	division
share	group
odd	even
	times-table

Do you remember how to use grouping? How many groups of 2  are there in 8 ?



Unit 7

Statistics



In this unit we will ...

- ⚡ Make tally charts
- ⚡ Use pictograms
- ⚡ Use block diagrams
- ⚡ Solve word problems

We will need to use tally charts.
How many of each animal is there?

	###
	### II



Here are some new maths words.
Can you read them out loud?

tally chart

pictogram

key

We will also use pictograms.
Who picked the most apples?

Name	Number
Tariq 	
Amy 	



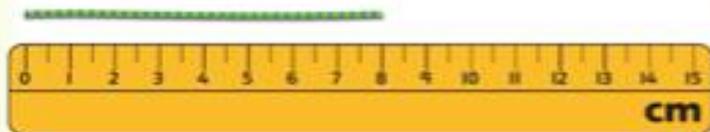
Unit 8

Length and height



- In this unit we will ...
- ⚡ Measure objects in centimetres and metres
 - ⚡ Compare two lengths
 - ⚡ Put lengths in order
 - ⚡ Solve word problems about length

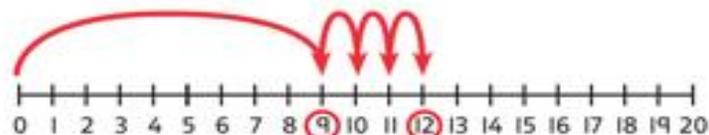
We will be using rulers.
How long is this piece of string?



Here are some maths words we have seen before. Which ones mean the same thing?

length	centimetres	cm
metres	m	longer
metre sticks	height	width
compare	distance	

We can also use a number line to compare lengths. Which straw is longer? What is the difference between them?



Unit 9

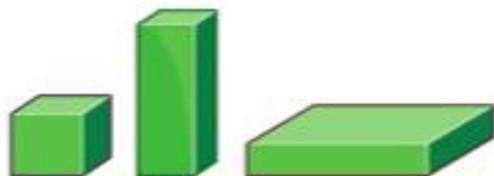
Properties of shapes



In this unit we will ...

- ⚡ Recognise 2D and 3D shapes
- ⚡ Count the sides and vertices on 2D shapes
- ⚡ Learn about symmetry
- ⚡ Count the faces, edges and vertices on 3D shapes
- ⚡ Sort 2D and 3D shapes

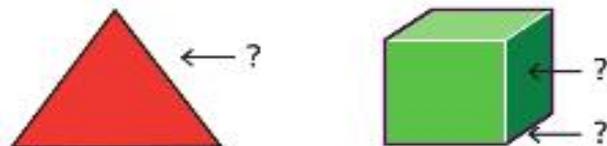
How are these shapes similar?
How are they different?



We need lots of words to describe 2D and 3D shapes. Do you know any of these words?

quadrilateral polygon prism
hexagon octagon vertex vertices
hemisphere symmetry line of symmetry
symmetrical curved surface

Do you remember what these are called?



Unit 10

Fractions



In this unit we will ...

- ⚡ Learn about the whole and equal parts
- ⚡ Recognise and find a half
- ⚡ Recognise and find a quarter
- ⚡ Learn about unit fractions
- ⚡ Count in halves and quarters

What is half of 6?

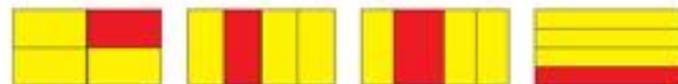
You can use  to help.



We will need some maths words. Some are new. Which words do you remember?

half ($\frac{1}{2}$) quarter ($\frac{1}{4}$) whole
third ($\frac{1}{3}$) equivalent
equal part numerator
denominator fraction bar
non-unit fraction
unit fraction

Which of these is the odd one out? Why?





Year 2

Power Maths Book C
Knowledge organisers
Units 11 - 14



Unit II

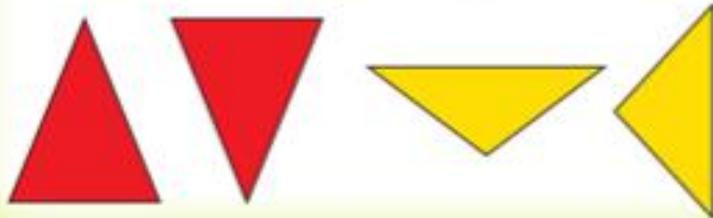
Position and direction



In this unit we will ...

- ⚡ Describe movement
- ⚡ Describe turns
- ⚡ Make patterns by turning shapes

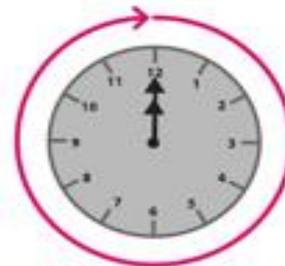
We will use shapes to make patterns. Can you say which shape has made a half turn?



We will need some maths words. Which of these are new?

clockwise anticlockwise forwards
backwards left right middle
turn half turn quarter turn
three-quarter turn

Do you think this is a clockwise or an anticlockwise turn?



Unit 12

Problem solving and efficient methods



In this unit we will ...

- ⚡ Compare ways of calculating
- ⚡ Use mental addition and subtraction
- ⚡ Look for the most efficient way to solve a problem
- ⚡ Use number facts to solve problems
- ⚡ Solve word problems using all four operations

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

We will use a 100 square to help us. What is 22 more than 46?



We will need some maths words. Have you heard any of these before?

number facts

calculate mentally

bar model

number line

part-whole model

100 square

We can use a bar model to help us add, subtract, multiply and divide. Can you use this bar model to calculate $17 + \square = 40$?

40	
17	?



Unit 13

Time



In this unit we will ...

- ⚡ Tell the time to the hour, the half hour and quarter hour
- ⚡ Tell the time to five minutes
- ⚡ Find start and end times
- ⚡ Find out how long something lasts
- ⚡ Compare amounts of time

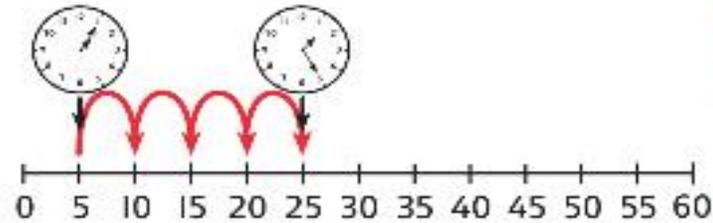
Do you remember which is the hour hand and which is the minute hand?



We will need some maths words. Have you heard any of these before?

o'clock half past
quarter past quarter to
minute hand hour hand
duration

We can count forwards or backwards on a number line to help us solve time problems. How many minutes between five minutes past 1 and twenty-five minutes past 1?



Unit 14

Weight, volume and temperature



In this unit we will ...

- ⚡ Compare and measure mass
- ⚡ Compare and measure volume
- ⚡ Measure temperature
- ⚡ Read a thermometer

We will use balance scales to compare and measure mass. Can you use this balance scale to work out which fruit is heavier?



We will need some maths words. Which of these have you heard before?

mass balance weighing scales
grams, g kilograms, kg
litres, l millilitres, ml volume capacity
temperature thermometer
degrees Celsius, °C estimate
approximation

We will use different things to measure. Have you used any of these? Can you match the names?



thermometer
balance scale
measuring jug
weighing scale

