Year 1

Power Maths Books A, B and C

Knowledge organisers

Year 1

Power Maths Book A

Knowledge organisers

Units 1 - 6

Numbers to 10

We will need some maths words. Do you know some of these?

sort   groups   digits   count back

fewer   one more, one more than

one less, one less than   matched

less than (<)   greater than (>)

equal to (=)   most   least

fewest   greatest   number line

number track   pattern

In this unit we will …
- ⚡ Sort and count objects to 10
- ⚡ Count and write to 10
- ⚡ Count backwards from 10 to 0
- ⚡ Count one more and one less
- ⚡ Compare and order numbers
- ⚡ Learn to use a number line

You can count to find how many there are. How many ⚡ are there?

1   2   3   4   5

Do you remember how to say these numbers? Count to 10!

1 2 3 4 5 6 7 8 9 10

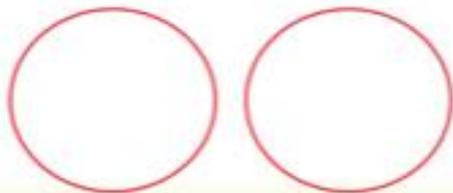# Unit 2
Part-whole within 10

In this unit we will …
- ⚡ Use the part-whole model
- ⚡ Write number sentences
- ⚡ Find different ways to make a number
- ⚡ Make number bonds
- ⚡ Compare number bonds

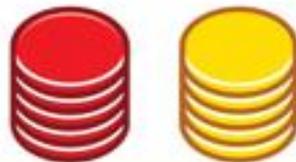How could you put these flowers into 2 groups? Use ◯ to help you!

Here are some maths words. Have you used any of these before?

groups　　　**part-whole model**

number sentence

part　　**whole**　　**plus**

How many different ways can you make 5? Use ◯ to help.

We will need some maths words. Which ones mean the same thing?

altogether (say 'all-too-geth-er')

in total   **add, added**   **count on**

missing part   **number stories**

In this unit we will ...
- ⚡ Add parts to find the whole
- ⚡ Find a missing part
- ⚡ Practise using number bonds
- ⚡ Find fact families
- ⚡ Solve word problems

We need these too! Use them to make number sentences.

Do you remember what this is called? Use it to find one more than 3.
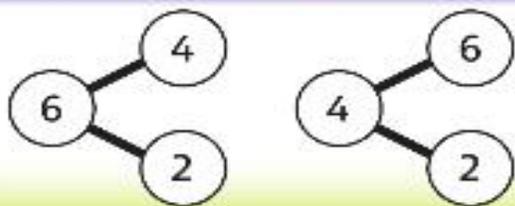
0   1   2   3   4   5   6
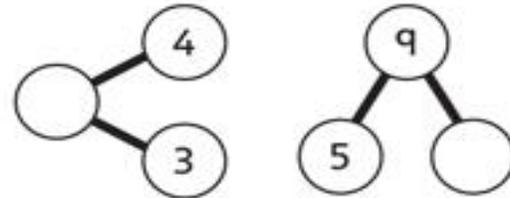
Unit 4
Addition and subtraction within 10 ②

In this unit we will …
- ⚡ Take away to find how many are left
- ⚡ Subtract by breaking the whole into parts
- ⚡ Discover related number facts
- ⚡ Compare additions and subtractions
- ⚡ Find the difference
- ⚡ Solve word problems

These maths words and phrases will help us. Do you know any of these?

how many are left?   **take away**

subtract   **count backwards**

how many more   **how many fewer**

difference   **addition**

We have used this before. Which shows the problem correctly?

How can you use to find which is greater?

Unit 5
2D and 3D shapes

In this unit we will ...
- ⚡ Name 3D shapes
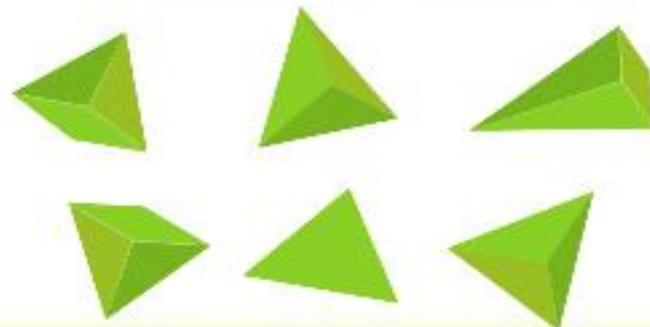- ⚡ Name 2D shapes
- ⚡ Make patterns with shapes

We will need some shape words. Do you know some more shape words?

3D shape	cube	cuboid
	sphere	pyramid	cylinder
cone	2D shape	circle
triangle	rectangle	faces
pattern	square	repeat

Here are some shapes. Can you name them?

Which shape is the odd one out? Why?

Unit 6
Numbers to 20

In this unit we will …
- ⚡ Count using tens and ones
- ⚡ Count one more and one less
- ⚡ Compare numbers of objects
- ⚡ Compare and order numbers

We will need some maths words. Which words do you already know?

order   smallest

tens   ones

We will use tens to help count. How many are there?

We need this too! Which numbers are missing?

0 1 2 3 ☐ 5 6 ☐ 8 9 10

Year 1

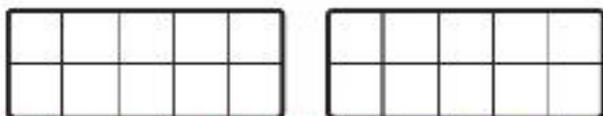Power Maths Book B

Knowledge organisers

Units 7 - 11

Unit 7
Addition within 20

In this unit we will …
- ⚡ Add by counting on
- ⚡ Practise adding ones to help with adding numbers to 20
- ⚡ Use number bonds to 10 to help us with numbers bonds to 20
- ⚡ Solve word problems

We will need a ten frame again. How would you use a ten frame to add 8 red counters and 5 yellow counters?
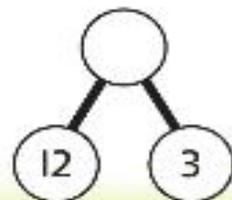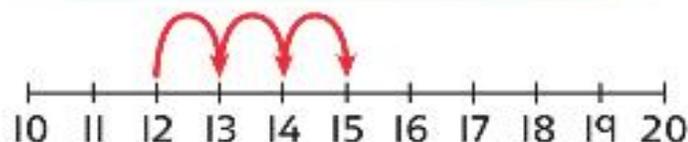
We will need some maths words. Which words do you already know?

add   altogether

ones   tens

number bonds   part-whole

We can still use this 0 1 2 3 4 5 6 7 8 9 10 and this to help us. What is 12 + 3?

10 11 12 13 14 15 16 17 18 19 20

12   3

Unit 8
Subtraction within 20

In this unit we will …
- ⚡ Subtract tens and ones
- ⚡ Learn how to cross a 10 when subtracting
- ⚡ Compare additions and subtractions
- ⚡ Solve word and picture problems
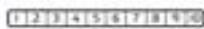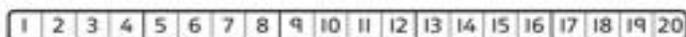
We will need some maths words. Have you seen all of these before?

subtract   take away

find the difference

how many are left?

tens   ones   number bonds

part-whole

We will need a ten frame again. Can you remember how to use it to help you find the answer to 15 – 3?

15 – 3 = ☐

We can also use this
0 1 2 3 4 5 6 7 8 9 10 and this
1 2 3 4 5 6 7 8 9 10 to help us.
What is 13 – 3?

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |

Unit 9
Numbers to 50

In this unit we will …
- ⚡ Count up to 50
- ⚡ Compare numbers to 50
- ⚡ Order numbers
- ⚡ Count in 2s and 5s
- ⚡ Solve word and picture problems

We will need some maths words and signs. Do you remember these?

tens   ones

compare   order

less than (<)   greater than (>)

We can use different things to show the value of a number. We can use ▭, ◎ or ▭. What number is shown here?

We can use a number line to help us order and compare numbers. Which number is larger, 12 or 21?
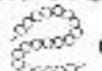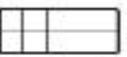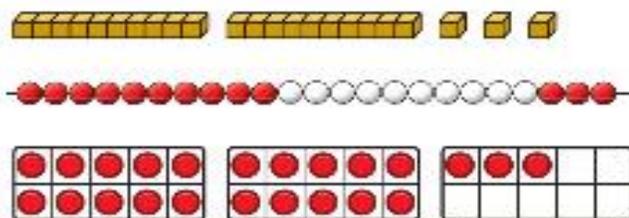
Unit 10
Introducing length and height

We will need some maths words. Can you read them out loud?

long, longer, longest

short, shorter, shortest

tall, taller, tallest

length   height

compare   measure

In this unit we will …
- ⚡ Compare lengths and heights of objects
- ⚡ Use non-standard units to measure objects
- ⚡ Measure with a ruler
- ⚡ Solve word problems about length

We can use cubes to help us compare the length of objects. Which is longer, the pen or the pencil?

We use a ruler to measure lengths. How long is this pencil?

Introducing weight and volume

We will need some maths words. Can you read them out loud?

heavier, heaviest   lighter, lightest

capacity   balance scales

full   empty   compare

weight, weigh   balanced

measure   estimate

In this unit we will …
- ⚡ Compare the weight of objects
- ⚡ Weigh objects
- ⚡ Compare the capacity of objects
- ⚡ Measure capacity
- ⚡ Solve word problems about weight and capacity

Have you seen one of these before? It is a balance scale. We can use it to compare the weight of objects. Which item do you think is heavier?

We can use glasses to measure capacity. Which jug had the most squash in it?

Year 1

Power Maths Book C

Knowledge organisers

Units 12 - 18

Unit 12
Multiplication

In this unit we will …
- ⚡ Count in 10s, 5s and 2s
- ⚡ Make and add equal groups
- ⚡ Make arrays
- ⚡ Make doubles
- ⚡ Solve word problems

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

equal groups   **array**   **row**

column   **double**   **twice**

An array will be useful. How many flowers are there? Is there a quicker way to count them?

We will use ten frames to help us find doubles. What is double 3?

Unit 13
Division

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

equal groups   **share**

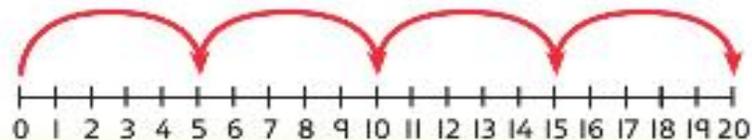In this unit we will …
- ⚡ Make equal groups
- ⚡ Share amounts equally
- ⚡ Solve word problems

Counters can help us show groups. Can you use counters to find how many groups of 2 flowers there are?

We can also use a number line to help us. Can you put these into groups of 5? How many groups are there?

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

Unit 14
Halves and quarters

In this unit we will …
- ⚡ Find half of a shape or object
- ⚡ Share equally
- ⚡ Find a quarter of a shape or object
- ⚡ Solve word problems about halves and quarters

We will be using these maths words. Can you read them out loud?

half   halves   quarter

We will also do some sharing. Share the jam tarts equally. How many does each child get?
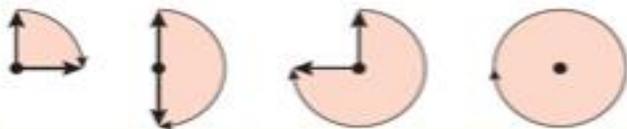
We can find half of a shape. Which shape has been cut in half?

Unit 15
Position and direction

These maths words help us talk about where something is. Do you know any of these?

turn   half turn   quarter turn

three-quarter turn   whole turn   position

left   right   forwards   backwards

above   below   top   middle   bottom

up   down   in between

In this unit we will …
- ⚡ Describe turns
- ⚡ Use the words left and right
- ⚡ Say if something is at the top, middle or bottom

Look at where these animals are. Which animal is on the bottom shelf?

We will use these arrows to show turns. Which one do you think shows a whole turn?

Unit 16
Numbers to 100

In this unit we will …
- ⚡ Count in tens
- ⚡ Learn how to use a 100 square
- ⚡ Use tens and ones to make larger numbers
- ⚡ Say which number is larger and smaller
- ⚡ Find numbers which add to 100

We will use this 100 square. Can you find number 30?

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 need some maths words. Can you read these out loud?

100 square   **number square**

place value grid

We will need this too. What number is shown here?

Tens	Ones

Unit 17
Time

In this unit we will …
- ⚡ Say if things happen before or after
- ⚡ Use a calendar
- ⚡ Tell time to the hour and the half hour
- ⚡ Compare time
- ⚡ Solve time word problems

We will need some maths words. You may know some of these.

before	after	yesterday
today	tomorrow	day week
slower	faster	month year
calendar	date	minute hand
hour hand	o'clock	half past
second	minute	hour

This is a calendar. Can you use it to find how many days are in a week?

There are lots of different types of clock. Do all of these show the same time?
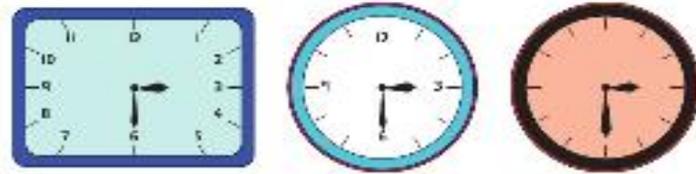
Unit 18
Money

In this unit we will …
- ⚡ Learn about coins
- ⚡ Learn about notes
- ⚡ Count in 1s, 2s, 5s and 10s using coins

Have you heard these money words before? Which letter means pence?

pound   pence

coins   notes   p

Here are some coins. Do you know which is the 5 pence coin?

Do you remember these signs? > < Complete this sentence using > or < .