



Fully
Recommended
by the DfE!

**The whole-class mastery approach
that works for every child**

Created in
partnership
with





**At the heart of
Power Maths
is the belief that all
children can achieve.
It's built on an
exciting growth
mindset and
problem-solving
approach.**

Key aims of *Power Maths*

Keeping the whole class progressing together

Providing rich problem solving to challenge and engage every child

Practical assessment to reveal misconceptions and inform speedy interventions

Nurturing a growth mindset and building children's confidence in maths

In a nutshell ...

-  An exciting **whole-class mastery approach** for Reception to Year 6
-  Written by **mastery experts** and inspired by best practice from around the world
-  Fully **recommended by the Department for Education**
-  Created specifically for **UK classrooms**
-  Makes maths an adventure and helps build a culture of **excitement and confidence!**

What is mastery?

“Mastering maths means acquiring a deep, long-term, secure and adaptable understanding of the subject” – NCETM

We achieve this by ...

Developing
mathematical
thinking

Carefully
sequenced,
small step
learning

Building
fluency

Representation
that expose
mathematical
structures

Growth mindset

Fixed mindset

"I'm not good at maths – I've never been good at maths"

"I give up – I can't make this any better"

"If I fail I am a failure"

"I can't do this – I keep making mistakes"

Growth mindset

"I'm finding maths hard now, but I can improve with time and effort"

"I can improve if I keep trying"

"Most successful people fail along the way"

"Mistakes help me learn"

Meet the growth-mindset characters!

Flo

Flo is flexible and creative. She often with new methods to solve problems.

Can we do it differently?



Dexter

Dexter is determined. When he makes a mistake he learns from it and tries again.

Let's try again!

Meet the growth-mindset characters!



Astrid

Astrid is brave and confident. She is not afraid to make mistakes.

I will share my ideas!

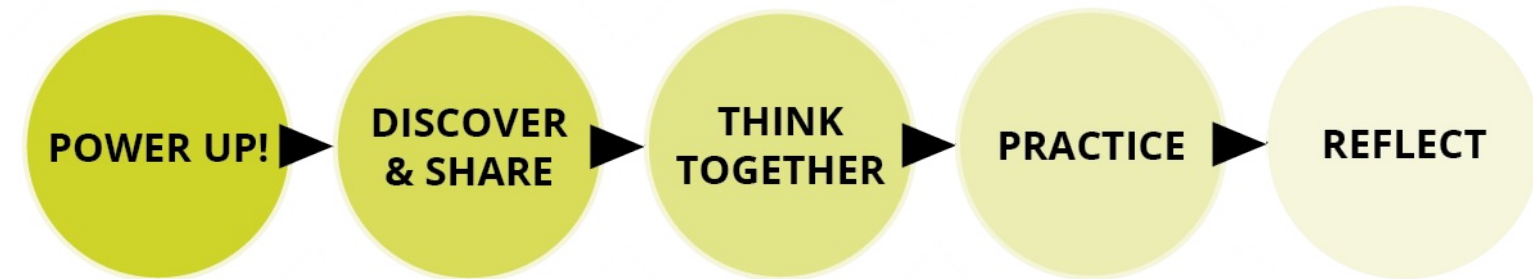


Is there a pattern?

Ash

Ash is curious and inquisitive. He loves to explore new concepts

See the lesson structure



Same Day Intervention



Discover and Share

Unit 7: Multiplication and division (2), Lesson 8

Dividing up to a 4-digit number by a 1-digit number 2

Discover



- How many pieces of litter has each child picked up?
- Mr Jones has picked up 351 pieces of litter. He shares them equally between 3 bags.
How many pieces of litter are in each bag?

36

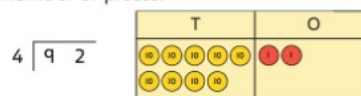
Engaging scenarios

Concrete-Pictorial-Abstract approach

Share

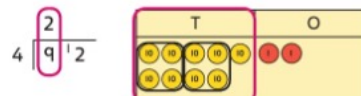
- 4 children picked up 92 pieces of litter.

They each picked up the same number of pieces.



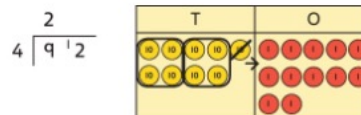
To work this out, I need to divide 92 by 4. I will use the method of short division that we learnt in the last lesson.

First, lay out the problem.



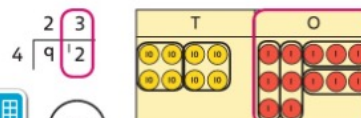
How many groups of 4 go into 9 tens?

2 groups of 4 tens with 1 ten left over.



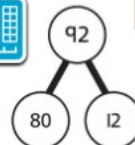
Exchange the 1 ten left over for 10 ones.

We now have 12 ones.



How many groups of 4 go into 12 ones?

3 groups of 4 ones.



I used a part-whole model to partition the number into two numbers that divide by 4.

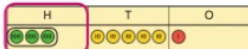
$$80 \div 4 = 20 \quad 12 \div 4 = 3$$

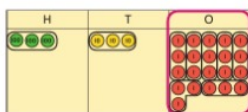
$$20 + 3 = 23$$

92 $\div$ 4 = 23, so each child picked up 23 pieces of litter.



$$\begin{array}{c} 1 \\ 3 \mid 3 \ 5 \ 1 \end{array}$$


$$3 \overline{) 35^2 1}$$

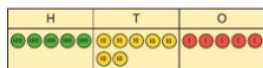
$$\begin{array}{r} 1 \quad 1 \quad 7 \\ 3 \overline{) 3 \quad 5 \quad 21} \end{array}$$


There are 7 groups of 3 ones in 21.

There are 117 pieces of litter in each bag.

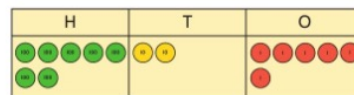
Think together

Each person gets ml of juice.

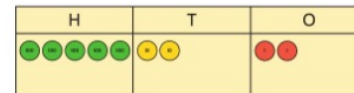


a) $726 \div 6 =$

$$6 \overline{) 726}$$



b) $522 \div 3 =$

 $485 \div 5$
$$\begin{array}{r} 0 \ 3 \ 5 \\ 5 \overline{) 4 \ 17 \ 25} \end{array}$$


Friendly, supportive characters help children develop a growth mindset.

Practice

Questions are presented
in a logical sequence.

→ Textbook 5B p36

Unit 7: Multiplication and division (2), Lesson 8

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Dividing up to a 4-digit number by a 1-digit number ②

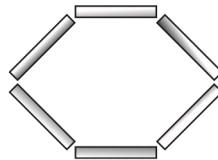
- 1 Mo is dividing 78 by 3. Complete his working.

T	O
7	8

3 $\overline{) 78}$

78 $\div$ 3 =

- 2 Olivia is making hexagons with straws, like this:



Olivia has 96 straws. How many hexagons
can she make?

T	O
9	6

6 $\overline{) 96}$

Olivia can make hexagons.

- 3 Work out these divisions.

a) $642 \div 6 =$ b) $725 \div 5 =$ c) $5,016 \div 3 =$

6 $\overline{) 642}$

5 $\overline{) 725}$

3 $\overline{) 5016}$

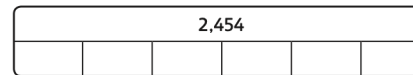
- 4 Calculate the answers to these divisions.

a) $7,924 \div 7 =$ b) $711 \div 3 =$ c) $916 \div 4 =$

7 $\overline{) 7924}$

- 5 What division does this bar model model represent?

Write the calculation and then solve it.



- 6 Isla has made a number and then divided her number by 4 using short division.

What mistake has Isla made?

Th	H	T	O
8	7	9	6

4 $\overline{) 8796}$

- 7 Fill in the missing numbers in these short divisions.

a) $\begin{array}{r} 2 \\ 4 \overline{) 172} \end{array}$ b) $\begin{array}{r} 22 \\ 3 \overline{) 873} \end{array}$ c) $\begin{array}{r} 6 \\ 5 \overline{) 30} \end{array}$

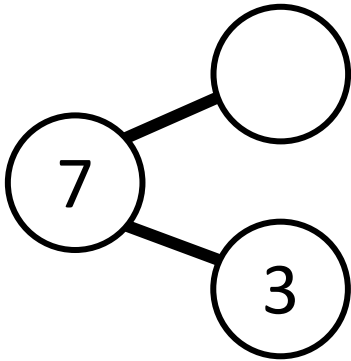
27

28

Calculations are connected so that children
think about the underlying concepts.

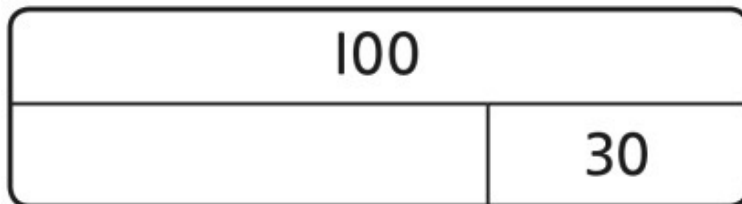
Models and representations

Part-whole models



Shows how numbers can be split into parts. Helps show the connection between addition and subtraction.

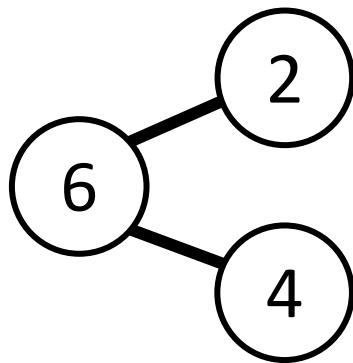
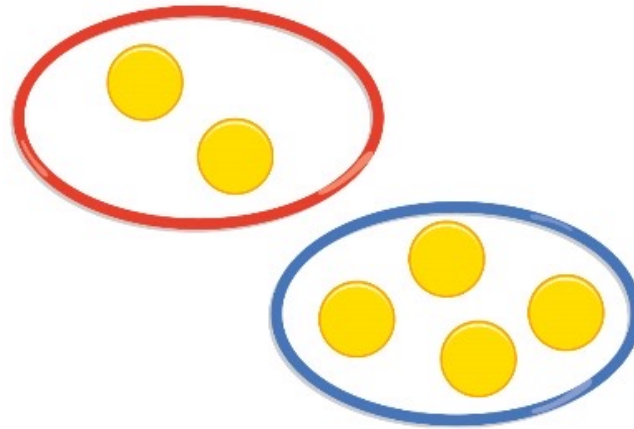
Bar models



Helps show the maths problem as a picture.



Models and representations



$$2 + 4 = 6$$



MATHS

IS AN ADVENTURE

