POWER MATHS

Fully Recommended by the DfE!

The whole-class mastery approach that works for every child

Created in partnership with

White Rose Maths

P Pearson

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

POWER MATHS

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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**!

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What is mastery?

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

We achieve this by …

Carefully sequenced, small step learning

Representation that expose mathematical structures

Developing mathematical thinking

Building fluency

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Growth mindset

Fixed mindset	Growth mindset
"I'm not good at maths – I've never been good at maths"	"I'm finding maths hard now, but I can improve with time and effort"
"I give up – I can't make this any better"	"I can improve if I keep trying"
"If I fail I am a failure"	"Most successful people fail along the way"
"I can't do this – I keep making mistakes"	"Mistakes help me learn"

Meet the growth-mindset characters!

Flo

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

Dexter

Dexter is determined. When he makes a mistake he learns from it and tries again.
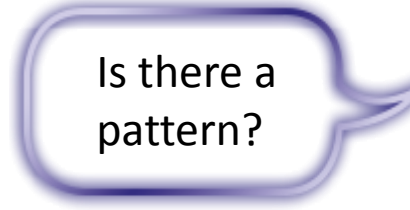
Can we do it differently?

Let's try again!

Meet the growth-mindset characters!

Astrid

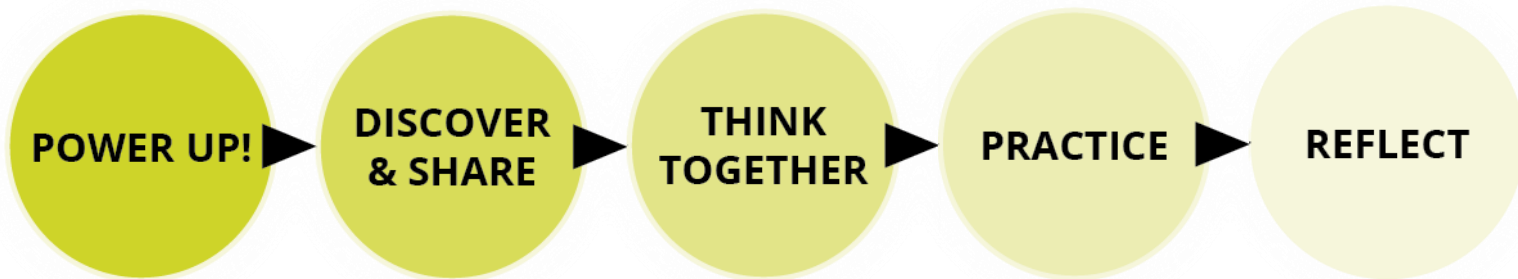Astrid is brave and confident. She is not afraid to make mistakes.

Is there a pattern?

I will share my ideas!

Ash

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

See the lesson structure

POWER UP! ▶ DISCOVER & SHARE ▶ THINK TOGETHER ▶ PRACTICE ▶ REFLECT

Same Day Intervention

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Discover and Share

Concrete-Pictorial-Abstract approach

Engaging scenarios

Think together

b) Mr Jones shares 351 pieces of litter equally between 3 bags.

$3 \overline{)3\ 5\ 1}$ → 1

There is 1 group of 3 hundreds.

$3 \overline{)3\ 5\ {}^2 1}$ → 1 1

There is 1 group of 3 tens and 2 tens left over.

$3 \overline{)3\ 5\ {}^2 1}$ → 1 1 7

Exchange the 2 tens for 20 ones. You now have 21 ones

There are 7 groups of 3 ones in 21.

$351 \div 3 = 117$

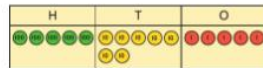There are 117 pieces of litter in each bag.

Think together

1 The children have a flask containing 575 ml of juice.

They share the juice equally among themselves and Mr Jones.

How much juice does each person get?

$575 \div 5 = \boxed{}$

Each person gets $\boxed{}$ ml of juice.

2 Complete these short divisions.

a) $726 \div 6 = \boxed{}$

$6 \overline{)7\ 2\ 6}$

b) $522 \div 3 = \boxed{}$

$3 \overline{)5\ 2\ 2}$

3 a) Look at these division problems.

| There are 312 eggs. How many boxes of 6 eggs can be made? | Divide 1,980 by 2 | $485 \div 5$ |

What is different about these divisions compared with the ones you have been doing so far?

I think there is something different in the first step of each division.

b) Max tries to work out the third division problem. What mistake has Max made?

$5 \overline{)4\ {}^1 7\ {}^2 5}$ → 0 3 5

CHALLENGE

Friendly, supportive characters help children develop a growth mindset.

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Practice

Questions are presented in a logical sequence.

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

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

$3 \overline{)78}$

T	O

$78 \div 3 = \boxed{}$

2 Olivia is making hexagons with straws, like this:
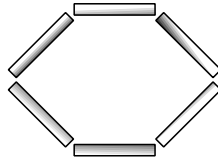
Olivia has 96 straws. How many hexagons can she make?

$6 \overline{)96}$

T	O

Oliva can make $\boxed{}$ hexagons.

3 Work out these divisions.

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

$6 \overline{)642}$ $5 \overline{)725}$ $3 \overline{)5016}$

4 Calculate the answers to these divisions.

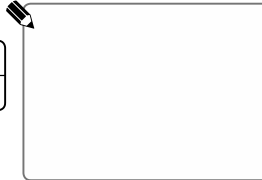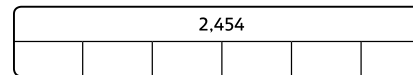a) $7,924 \div 7 = \boxed{}$ b) $711 \div 3 = \boxed{}$ c) $916 \div 4 = \boxed{}$

$7 \overline{)7924}$

5 What division does this bar model model represent?

Write the calculation and then solve it.

2,454

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

What mistake has Isla made?

$4 \overline{)1\,^35\,^31\,^36}$ = $0\;8\;7\;9$

Th	H	T	O

7 Fill in the missing numbers in these short divisions.

a)
$4 \overline{)^17\;2}$ = 2

b)
$3 \overline{)8\;7\;3}$ = $2\;2$

c)
$5 \overline{)^1\;^30}$ = 6

27   28

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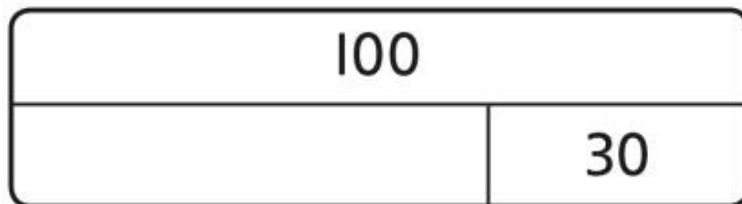
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Models and representations

Part-whole models
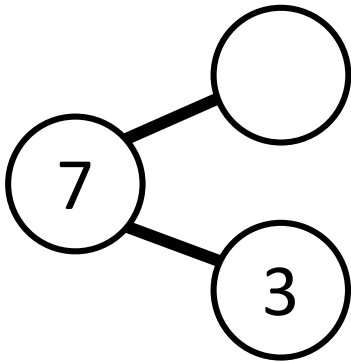
Shows how numbers can be split into parts. Helps show the connection between addition and subtraction.
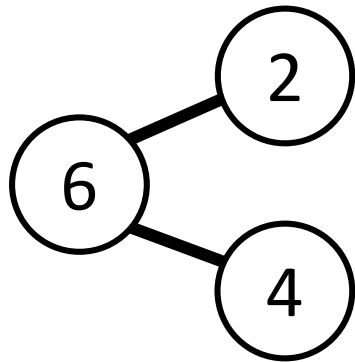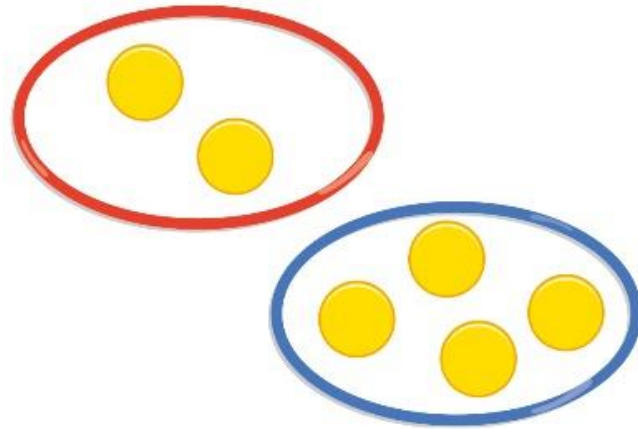
Bar models

100	
	30

Helps show the maths problem as a picture.

Models and representations

2 + 4 = 6

POWER MATHS

MATHS IS AN ADVENTURE

Curious
Learn
Exciting
Learn