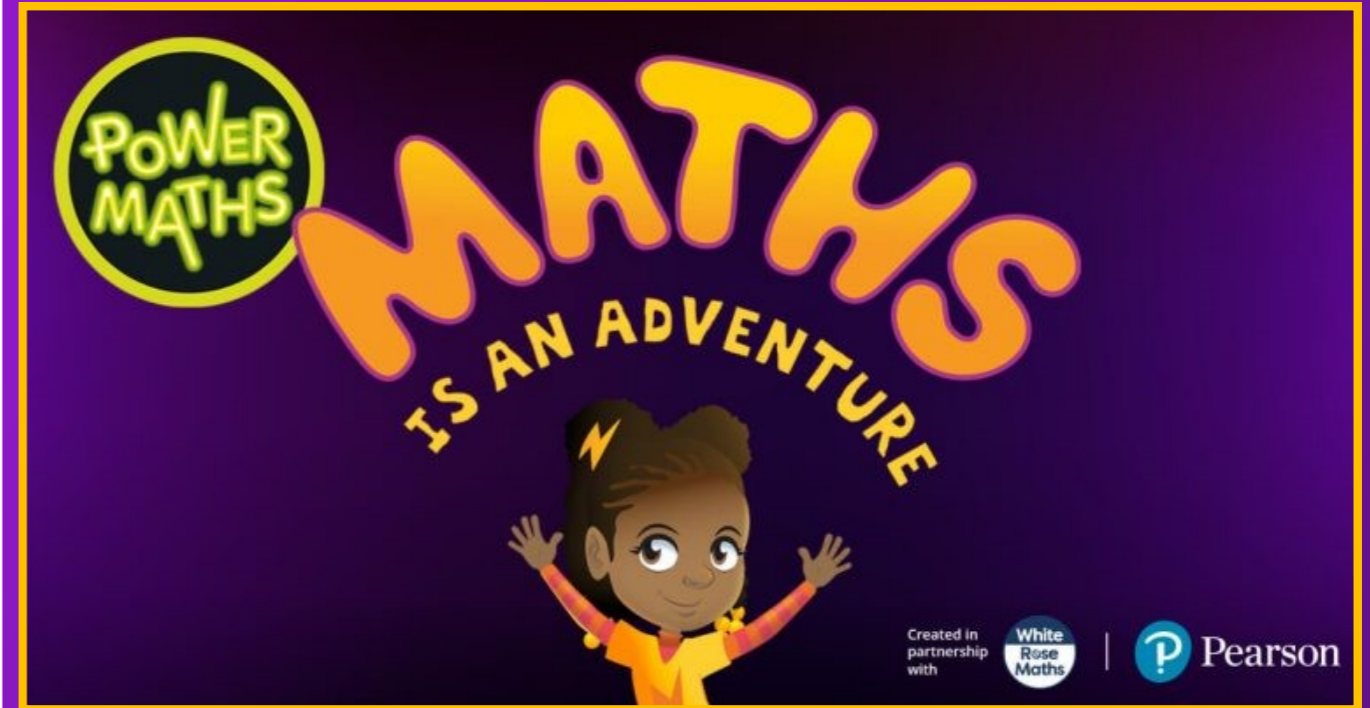




Maths

Progression Document



Curriculum Intent

It is our intent that children will leave our schools resilient, emotionally literate, aspirational, effective communicators who are happy and therefore ready for the next stage of their life through the behaviour, knowledge and skills they have learnt whilst in our care. If we can achieve this for our children then we believe we are giving them the best opportunity to achieve success in their life. Through an inclusive and stimulating environment we will develop every child and allow them to write their own story in life. This intent is defined as our REACH principles.

Resilient: Every child is resilient.

Emotionally Literate: Every child is aware of their feelings and those of others.

Aspirational: Every child aspires for more in their learning and in life.

Communicators: Every child is an effective communicator.

Happy: Every child has the right to be happy. Bilton Community Federation



Our vision is to empower children to make a positive impact on the world and to apply the following values in all they do: **Care, Co-operation, Honesty, Forgiveness, Respect and Resilience.**

Mathematics is a powerful, universal language that helps us to make sense of our world. Our intent is that pupils at Bilton CE Junior School experience the beauty of mathematics and develop a sense of curiosity for and enjoyment of the subject that stays with them throughout life. Mathematics is used to explain, predict and represent events and tackle everyday problems. It is of central importance to our modern society, is an essential part of everyone's daily life and critical to science, technology, finance and engineering.

At Bilton CE Junior School, we follow a Teaching for Mastery approach to Mathematics. We spend more time on key topics, using a small steps approach to build upon prior knowledge and develop fluency, reasoning and problem solving. We believe that all children can be successful in Mathematics and we encourage pupils to develop resilience and perseverance. Our intent is to enable each child to believe in themselves as a mathematician.

We are confident that learning at a steadier and deeper pace benefits all children. Teaching for Mastery ensures no child is left behind as well as providing challenges to explore the content in more depth for children who grasp the content quickly. We have high expectations for all children. Evidence shows that all children need to develop a deeper understanding of concepts to be able to make connections, apply their understanding to a range of situations and creatively solve problems.

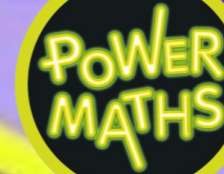
Our teaching for mastery approach is characterised by the following principles and features:

- We use Power Maths scheme of work to support our teaching.
- Whole class participation with pupils taught together.
- Pupils working in mixed ability groups.
- We are spending longer on one problem or concept.
- Pupils using carefully chosen representations and practical resources and talking to each other to secure their learning and try out ideas.
- Teachers targeting questions to individuals to deepen their knowledge.
- Children with additional needs are included in whole class lessons and teachers provide scaffolding and relevant support as necessary.
- For the few children who are working outside of their class curriculum, bespoke learning activities are provided to ensure their progress.
- Immediate verbal feedback during lessons and self-marking by pupils.
- Independent practise time where pupils apply their new knowledge in multiple ways through careful variation to build fluency and understanding.
- High expectations of pupil responses in full sentences with mathematical terminology and explanations.
- Regular reviews of learning

We use Mathletics as part of our mathematics program at school. Mathletics is a targeted, rewarding and captivating online learning resource, which is aligned to the curriculum taught. Children are set homework on Mathletics and simply sign in with their school username and password.

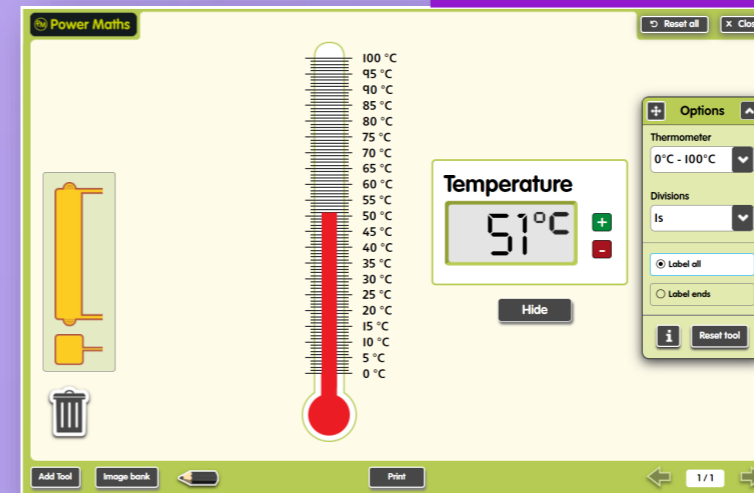


Detailed Overviews



Power Maths Year 4, Textbook 4A (Term 1) Overview

Strand 1	Strand 2	Unit	Lesson number	Lesson title	NC Objective 1	NC Objective 2
Number – number and place value		Unit 1	1	Place value – 4-digit numbers (1)	Numbers to 1,000	Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)
Number – number and place value		Unit 1	2	Place value – 4-digit numbers (1)	Rounding to the nearest 10	Round any number to the nearest 10, 100 or 1,000
Number – number and place value		Unit 1	3	Place value – 4-digit numbers (1)	Rounding to the nearest 100	Round any number to the nearest 10, 100 or 1,000
Number – number and place value		Unit 1	4	Place value – 4-digit numbers (1)	Counting in 1,000s	Count in multiples of 6, 7, 9, 25 and 1,000
Number – number and place value		Unit 1	5	Place value – 4-digit numbers (1)	Representing 4-digit numbers	Identify, represent and estimate numbers using different representations
Number – number and place value		Unit 1				Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)







Models and Images



Support Videos

Properties of shapes

 <p>Square</p> <ul style="list-style-type: none"> • 4 vertices • 4 right angles • Quadrilateral • All sides are equal in length • 2 sets of parallel lines • Regular shape • 4 lines of symmetry 	 <p>Rectangle</p> <ul style="list-style-type: none"> • 4 vertices • 4 right angles • Quadrilateral • 4 sides • 2 sets of parallel lines • Opposite sides are equal • 2 lines of symmetry
 <p>Regular hexagon</p> <ul style="list-style-type: none"> • 6 vertices • 6 sides • Interior angles add up to 120° 	 <p>Regular octagon</p> <ul style="list-style-type: none"> • 8 vertices • 8 sides • Each interior angle is 135°

Learning Wall Posters

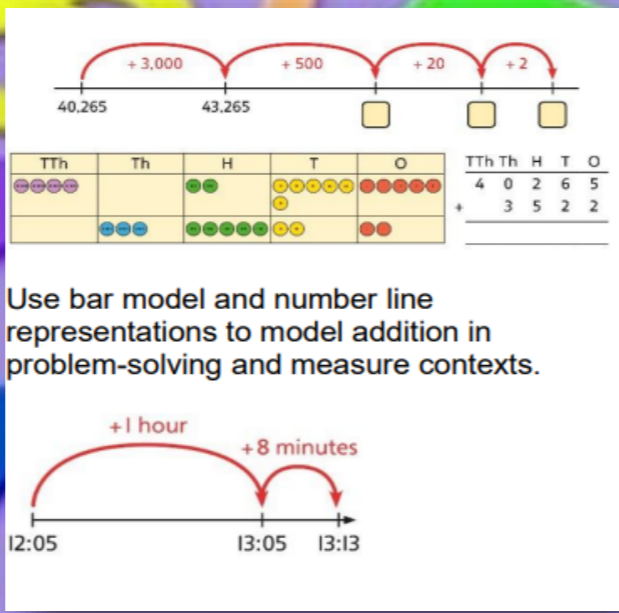
Misconceptions with exchange

H	T	O

T	O
3	4
+ 3	7
<hr/>	

Maths at BJS

Textbook and unit	Key vocabulary highlighted in this unit	New vocabulary
6B Unit 9: Decimals	multiply divide decimal decimal place (dp) recurring decimal placeholder place value tenths hundredths thousandths products fraction	recurring decimal
6B Unit 10: Percentages	per cent (%) percentage parts whole decimal fraction divide share multiply convert compare order equivalent fraction simplify less than (<) greater than (>)	
6B Unit 11: Measure: perimeter, area and volume	area volume perimeter parallelogram height perpendicular width length square centimetres (cm ²) square metres (m ²) base estimate formula compound shape dimensions cubic centimetres (cm ³) cubic metres (m ³)	dimensions compound shape base cubic centimetres
6C Unit 12: Statistics	mean average pie chart segments line graph bar chart percentage fraction data	pie chart segments average mean



Textbook and unit	Key vocabulary highlighted in this unit	New vocabulary
6C Unit 13: Geometry – properties of shapes	degree angle obtuse acute reflex right angle protractor triangle isosceles isometric equilateral scalene regular polygon quadrilateral parallelogram kite rhombus trapezium diameter radius circumference concentric perimeter nets pyramid tetrahedron cylinder prism vertically opposite angles cuboid cube	protractor vertically opposite angles isosceles radius concentric diameter circumference nets tetrahedron isometric
6C Unit 14: Geometry – position and direction	quadrant four quadrants translate translation x-axis y-axis axis axes horizontal vertical vertex vertices reflect reflection positive negative	x-axis y-axis four quadrants

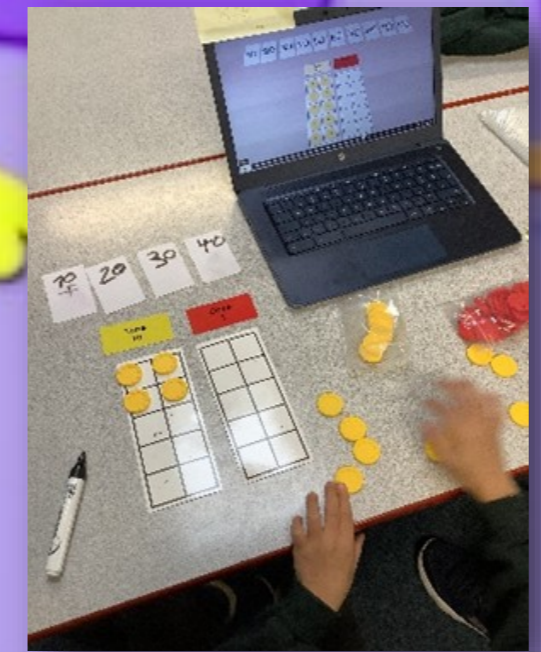
Use place value equipment to compare methods.

Method 1

Method 2

$4 \times 3,000 + 4 \times 200 + 4 \times 20 + 4 \times 5 = 12,000 + 800 + 80 + 20 = 12,900$

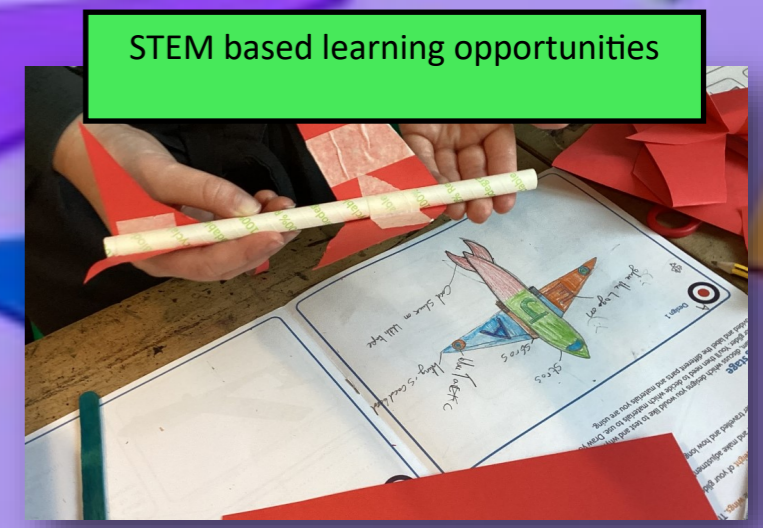
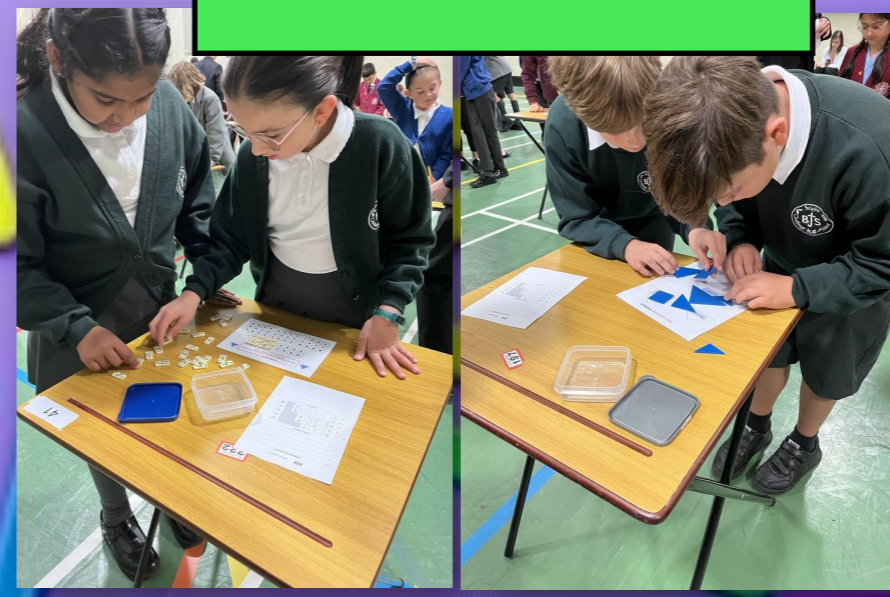
Textbook and unit	Key vocabulary highlighted in this unit	New vocabulary
6C Unit 15: Problem solving	partition estimate round compare equivalent percentage ratio proportion convert common denominator coordinates translation reflection vertex scaling isosceles triangle	scaling



Quality resources to support learning



Princethorpe Maths Challenge



STEM based learning opportunities

Mathletics FOR OUR YEAR 5 AND YEAR 6 CHILDREN

WHAT IS IT ALL ABOUT?

- M** Mistakes spotted and children receive immediate feedback
- A** Automated marking helps to show areas of support needed
- T** Tasks that blend different rewards to keep children motivated
- H** Helps students build strong skills through the Understanding, Practice and Fluency (UPF)
- S** Helps students build strong skills through the Understanding, Practice and Fluency (UPF)

Mathematical platforms such as Mathletics



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.

Discover and Share

Discover

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

We 4 children picked up 92 pieces of litter between us!

Mr Jones

Isla Andy Olivia Ebo

We each picked up the same number of pieces.

- 1 a) How many pieces of litter has each child picked up?
 b) 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?

Engaging scenarios

Share

Concrete-Pictorial-Abstract approach

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.

a) 4 children picked up 92 pieces of litter. They each picked up the same number of pieces.

4 $\overline{) 92}$

23

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.

92 = 80 + 12

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

$20 + 3 = 23$

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

Think together

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?

$575 \div 5 = \square$

Each person gets \square ml of juice.

2 Complete these short divisions.

a) $726 \div 6 = \square$

b) $522 \div 3 = \square$

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.

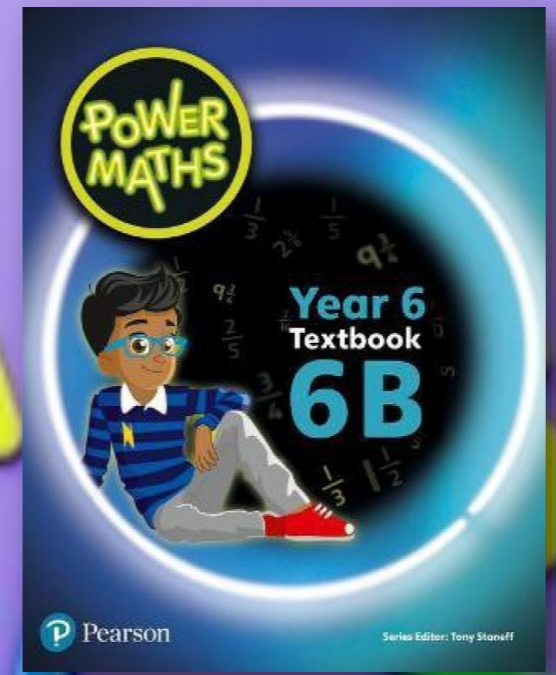
b) Max tries to work out the third division problem. What mistake has Max made?

$$\begin{array}{r} 035 \\ 5 \overline{) 41725} \end{array}$$

Friendly, supportive characters help children develop a growth mindset.

Textbook and unit	Key vocabulary highlighted in this unit	New vocabulary
6A Unit 1: Place value within 10,000,000	ten thousands (10,000s) hundred thousands (100,000s) millions (1,000,000s) ten million (10,000,000) place value partition interval estimate compare order rounding negative positive	
6A Unit 2: Four operations (1)	column addition remainder factor common factor common multiple prime composite squared (x^2) cubed (x^3)	
6A Unit 3: Four operations (2)	factor short division long division column multiplication long multiplication order of operations brackets inverse operations	column multiplication long multiplication short division order of operations brackets inverse operations
6A Unit 4: Fractions (1)	numerator denominator common denominator common factor equivalent simplify simplest form factor highest common factor lowest common multiple (LCM) compare order improper fraction mixed number convert lowest common denominator	simplest form simplify lowest common denominator

Textbook and unit	Key vocabulary highlighted in this unit	New vocabulary
6A Unit 5: Fractions (2)	numerator denominator whole number mixed number convert simplify integer improper fraction proper fraction	integer
6A Unit 6: Measure – imperial and metric measures	metric imperial units of measurement grams (g) kilograms (kg) pounds (lb) ounces (oz) feet (ft) yards (yd) millilitres (ml) litres (l) pints (pt) capacity millimetres (mm) centimetres (cm) metres (m) kilometres (km) inches (in) mass miles length convert conversion table conversion graph	units of measurement miles conversion table conversion graph
6B Unit 7: Ratio and proportion	ratio proportion part whole scale scale factor similar notation	ratio notation scale factor similar
6B Unit 8: Algebra	sequence rule term algebra expression calculation formula substitute generalise operation calculate equation solution	rule algebra operation expression substitute



Year 6 progression: compared with the first edition, there is not much change to the sequence of units for Term A. Note that Imperial and Metric units are included, rather than Position and Direction. You can see the new progression of lessons within the units by looking at the progression file for Upper KS2.

Resources to have ready: in the Autumn term you are mostly going to need place value counters and grids.

Week	Term		
	Autumn	Spring	Summer
1	Unit 1: Place value within 10,000,000 (8 lessons)	Unit 7: Ratio and proportion (9 lessons)	Unit 12: Statistics (11 lessons)
2			
3	Unit 2: Four operations (1) (8 lessons)	Unit 8: Algebra (11 lessons)	Unit 13: Geometry – properties of shape (12 lessons)
4			
5	Unit 3: Four operations (2) (12 lessons)	Unit 9: Decimals (9 lessons)	Unit 14: Position and direction (5 lessons)
6			
7		Unit 10: Percentages (8 lessons)	Unit 15: Problem solving (14 lessons)
8	Unit 4: Fractions (1) (9 lessons)		
9			
10	Unit 5: Fractions (2) (9 lessons)		
11		Unit 11: Measure – perimeter, area and volume (11 lessons)	
12	Unit 6: Imperial and metric (5 lessons)		

CONSOLIDATION AND SATS PREP



Practice

Questions are presented in a logical sequence.

→ Textbook 58 p36

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

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

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

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

$$3 \overline{) 78}$$

T	O
○ ○ ○ ○ ○	○ ○ ○ ○ ○
○ ○ ○ ○ ○	○ ○ ○ ○ ○

 $78 \div 3 = \square$

2 Olivia is making hexagons with straws, like this:



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

$$6 \overline{) 96}$$

T	O
○ ○ ○ ○ ○	○ ○ ○ ○ ○
○ ○ ○ ○ ○	○ ○ ○ ○ ○

Olivia can make \square hexagons.

3 Work out these divisions.

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

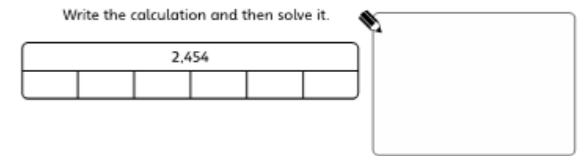
$$6 \overline{) 642} \qquad 5 \overline{) 725} \qquad 3 \overline{) 5016}$$

4 Calculate the answers to these divisions.

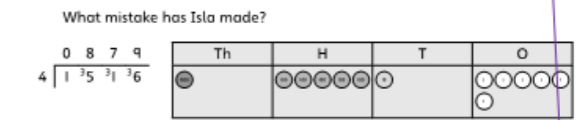
a) $7,924 \div 7 = \square$ b) $711 \div 3 = \square$ c) $916 \div 4 = \square$

$$7 \overline{) 7924}$$

5 What division does this bar model model represent?



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



7 Fill in the missing numbers in these short divisions.

a) $\begin{array}{r} 2 \\ 4 \overline{) 172} \end{array}$ b) $\begin{array}{r} 2 \\ 3 \overline{) 873} \end{array}$ c) $\begin{array}{r} 6 \\ 5 \overline{) 130} \end{array}$

27

28

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



Astrid

Ash

Flo

Dexter



Year 3 Planner



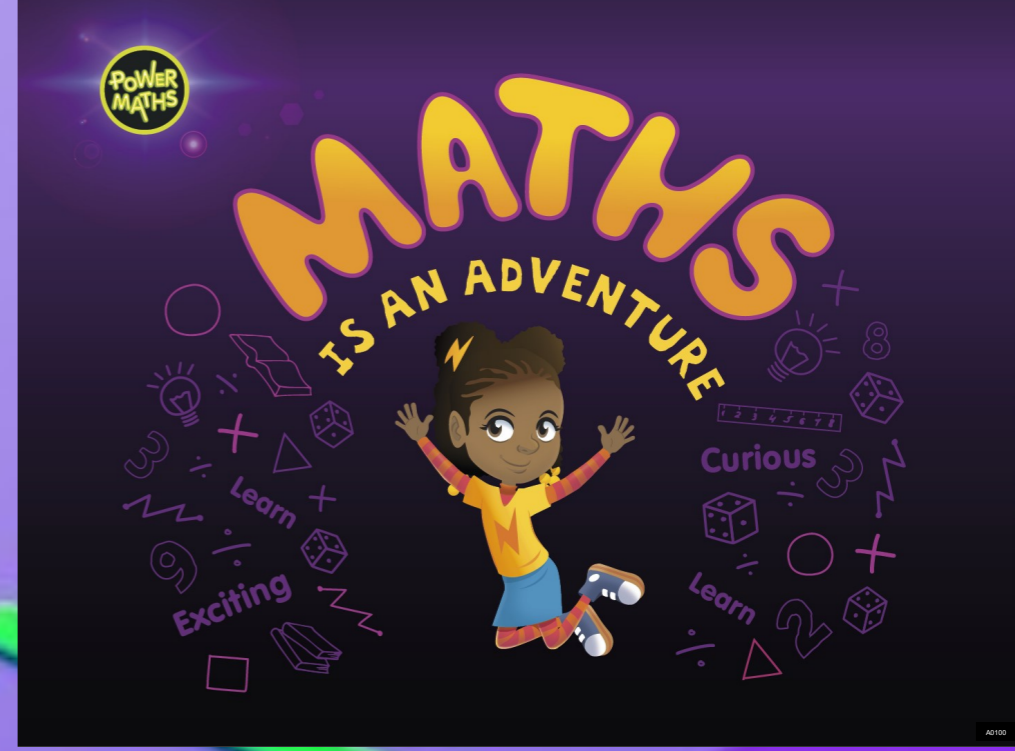
Year 3 progression: there has been very little change to the progression of units vs the first edition, although two of the three Multiplication & Division units now fall in Term A. You can see the new progression of lessons within the units by looking at the progression file for Lower KS2.

Resources to have ready: in the Autumn term you are mostly going to need base 10 apparatus.

Week	Term		
	Autumn	Spring	Summer
1	Unit 1: Place value within 1,000 (13 lessons)	Unit 6: Multiplication and division (3) (13 lessons)	Unit 11: Fractions (2) (8 lessons)
2			
3	Unit 2: Addition and subtraction (1) (10 lessons)	Unit 7: Length and perimeter (11 lessons)	Unit 12: Money (5 lessons)
4			
5	Unit 3: Addition and subtraction (2) (13 lessons)	Unit 8: Fractions (1) (10 lessons)	Unit 13: Time (12 lessons)
6			
7	Unit 4: Multiplication and division (1) (5 lessons)	Unit 9: Mass (7 lessons)	Unit 14: Angles and properties of shapes (9 lessons)
8			
9	Unit 5: Multiplication and division (2) (13 lessons)	Unit 10: Capacity (6 lessons)	Unit 15: Statistics (7 lessons)
10			
11			
12			



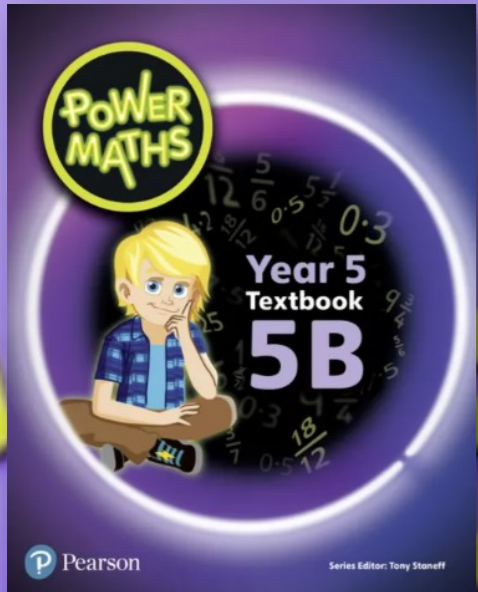
Textbook and unit	Key vocabulary highlighted in this unit	New vocabulary
5C Unit 16: Measure – converting units	convert metric units imperial units kilo kilogram gram milli millimetre centimetre metre kilometre litre millilitre pound (lb) ounce (oz) inch (in) foot (ft) yard (yd) pint gallon stone (st) approximately timetable	kilo milli metric units inch foot imperial units yard pound ounce stone pint gallon
5C Unit 17: Measure – volume	volume cube cuboid 3D shape solid capacity cm ³ cube estimate least greatest	cm ³ cube





Textbook and unit	Key vocabulary highlighted in this unit	New vocabulary
5B Unit 9: Decimals and percentages	decimal decimal place tenths hundredths thousandths decimal point place value digits fractions per cent (%) percentage	per cent percentage
5B Unit 10: Measure – perimeter and area	perimeter distance area length width polygon centimetres (cm) square centimetres (cm ²) brackets metres square metres (m ²) formula compare estimate 2D shape	brackets square metres compound shape
5B Unit 11: Graphs and tables	graph line graph table dual line graph horizontal vertical two-way table scale axis/axes vertical axis horizontal axis data kilometres (km) kilograms (kg) plot/plotted tallies/tally timetable	data horizontal axis vertical axis graph axes dual line graph tallies two-way table timetable

Textbook and unit	Key vocabulary highlighted in this unit	New vocabulary
5C Unit 12: Geometry – properties of shapes	angle whole turn right angle acute angle obtuse angle degree (°) interior angle clockwise anticlockwise parallel perpendicular regular irregular top view plan view side view	reflex interior angles top view plan view side view
5C Unit 13: Geometry – position and direction	reflection translation vertex vertices coordinates mirror line horizontal vertical	reflection mirror line
5C Unit 14: Decimals	add subtract decimal tenths hundredths thousandths complement divide decimal point whole multiply column exchange place value decimal place digit	complement
5C Unit 15: Negative numbers	positive negative increase decrease temperature interval step counting sequence	negative positive increase decrease



Key vocabulary list – Year 3

Textbook and unit	Key vocabulary highlighted in this unit	New vocabulary
3A Unit 1: Place value within 1,000	hundreds (100s) tens (10s) ones (1s) place value more less greater than (>) less than (<) equal to order compare estimate exchange ascending descending	hundreds exchange ascending descending
3A Unit 2: Addition and subtraction (1)	addition subtraction mental method exchange bonds	bonds
3A Unit 3: Addition and subtraction (2)	exchange column method estimate mental method multiple sum digit approximate add subtract difference plus minus total place value	digit multiple approximately
3A Unit 4: Multiplication and division (1)	equal multiply divide multiple times-tables sharing grouping array bar model repeated addition commutative	repeated addition commutative



Textbook and unit	Key vocabulary highlighted in this unit	New vocabulary
3A Unit 5: Multiplication and division (2)	equal multiply divide multiple times-tables sharing grouping array bar model repeated addition multiplication sentence multiplication fact division sentence division fact remainder	multiplication sentence division sentence remainder
3B Unit 6: Multiplication and division (3)	multiplication division statement number sentence compare less than (<) greater than (>) equal (=) equally least most remainder expanded written method share multi-step	statement expanded written method equally
3B Unit 7: Length and perimeter	length height width perimeter distance centimetres (cm) millimetres (mm) metres (m) measure unit of measurement add subtract multiply equivalent convert greater than (>) less than (<) ruler metre stick	metre stick ruler millimetres convert perimeter

Models and representations

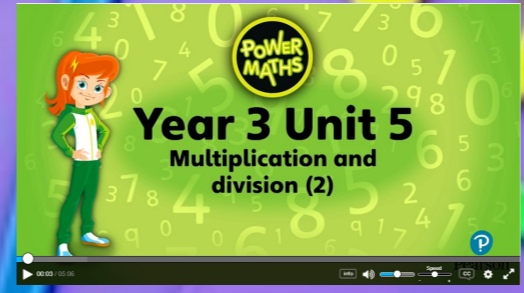
Part-whole models

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

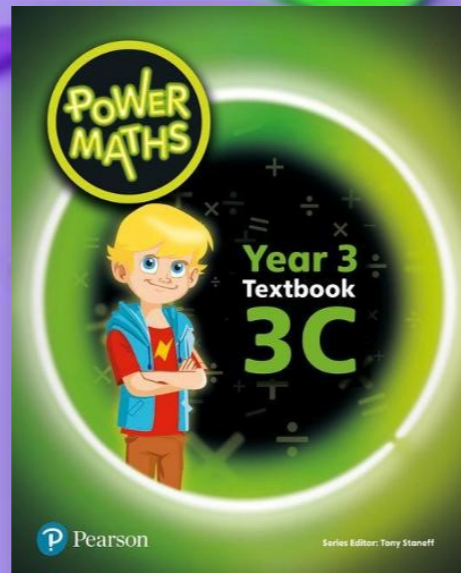
Bar models

Helps show the maths problem as a picture.

Pearson



Textbook and unit	Key vocabulary highlighted in this unit	New vocabulary
3B Unit 8: Fractions (1)	equivalent numerator denominator compare add fraction whole equivalent fraction greater than (>) less than (<) equal to multiply inequality statement divide	equivalent fraction
3B Unit 9: Mass	mass measure kilograms (kg) scale interval grams (g)	interval scale
3B Unit 10: Capacity	capacity litre (l) millilitres (ml) convert scale interval	
3C Unit 11: Fractions (2)	numerator denominator add subtract fraction whole equal to multiply divide parts set of objects	
3C Unit 12: Money	pounds (£) pence (p) convert total difference change	



Textbook and unit	Key vocabulary highlighted in this unit	New vocabulary
3C Unit 13: Time	numerals month year midnight midday am pm duration hour minute second past to start end digital clock	numerals digital am (ante meridiem) pm (post meridiem) midday midnight end duration
3C Unit 14: Angles and properties of shapes	right angle acute obtuse parallel perpendicular vertical horizontal triangle quadrilateral kite trapezium rhombus parallelogram cuboid triangular prism square-based pyramid cone tetrahedron cylinder sphere edges faces vertices clockwise anticlockwise	right angle acute obtuse horizontal vertical parallel perpendicular
3C Unit 15: Statistics	pictogram key bar chart scale table row column vertical axis	bar chart vertical axis

H	T	O

H	T	O

H	T	O

H	T	O

H	T	O

135 + 7 = 142

Key vocabulary list – Year 5

Textbook and unit	Key vocabulary highlighted in this unit	New vocabulary
5A Unit 1: Place value within 1,000,000 (1)	ones (1s) tens (10s) hundreds (100s) thousands (1,000s) ten thousands (10,000s) hundred thousands (100,000s) more than (>) less than (<) place value partition estimate	ten thousands hundred thousands
5A Unit 2: Place value within 1,000,000 (2)	ones (1s) tens (10s) hundreds (100s) thousands (1,000s) ten thousands (10,000s) hundred thousands (100,000s) million (1,000,000) round order ascending descending less than (<) greater than (>)	million
5A Unit 3: Addition and subtraction	add subtract ones (1s) tens (10s) hundreds (100s) thousands (1,000s) ten thousands (10,000s) mentally inverse round estimate distance chart	mentally distance chart inverse
5A Unit 4: Multiplication and division (1)	prime number composite number square number cube number square (x^2) cube (x^3) lowest common multiple multiply divide multiple factor	lowest common multiple common factor prime number composite number square number cube number

Use place value equipment on a place value grid to represent additions.

Represent exchange where necessary.

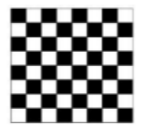
O	Tth	Hth	O · Tth Hth
			0 · 9 2
			+ 0 · 3 3
			1 · 2 5

Include examples where the numbers of decimal places are different.

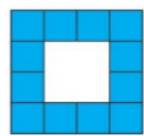
O	Tth	Hth	O · Tth Hth
			5 · 0 0
			+ 1 · 2 5
			6 · 2 5



Use images to explore examples and non-examples of square numbers.



$8 \times 8 = 64$
 $8^2 = 64$



12 is not a square number, because you cannot multiply a whole number by itself to make 12.

Textbook and unit	Key vocabulary highlighted in this unit	New vocabulary
5A Unit 5: Fractions (1)	equivalent numerator denominator whole fraction improper fraction mixed number convert order greater than (>) less than (<) is equal to (=)	improper fraction mixed number
5A Unit 6: Fractions (2)	add subtract proper fraction improper fraction convert equivalent fraction mixed number denominator numerator whole common denominator	common denominator proper fraction
5B Unit 7: Multiplication and division (2)	multiply divide add subtract place value partition equal multiple remainder sum total	
5B Unit 8: Fractions (3)	multiply proper fraction improper fraction mixed number whole(s) equal parts divide fraction of an amount operator numerator denominator convert	

Year 5 Planner

Year 5 progression: compared with the first edition, the units for the first half of Term A are familiar but the units for the second half of Term A have changed, now including two Fractions units, which would previously have fallen in Term B. The Fractions units and Multiplication & Division units are now interspersed (as there were some teachers/children who found the 3 consecutive Fractions units quite intense!). You can see the new progression of lessons within the units by looking at the progression file for Upper KS2.



Week	Term		
	Autumn	Spring	Summer
1	Unit 1: Place value within 1,000,000 (1) (8 lessons)	Unit 7: Multiplication and division (2) (10 lessons)	Unit 12: Geometry – properties of shapes (12 lessons)
2			
3	Unit 2: Place value within 1,000,000 (2) (6 lessons)	Unit 8: Fractions (3) (7 lessons)	Unit 13: Geometry – position and direction (6 lessons)
4			
5	Unit 3: Addition and subtraction (12 lessons)	Unit 9: Decimals and percentages (15 lessons)	Unit 14: Decimals (15 lessons)
6			
7	Unit 4: Multiplication and division (1) (10 lessons)	Unit 10: Measure – perimeter and area (8 lessons)	Unit 15: Negative numbers (4 lessons)
8			
9	Unit 5: Fractions (1) (8 lessons)	Unit 11: Graphs and tables (6 lessons)	Unit 16: Measure – converting units (10 lessons)
10			
11	Unit 6: Fractions (2) (11 lessons)		Unit 17: Measure – volume and capacity (3 lessons)
12			

Year 4 Planner

Year 4 progression: there has been very little change to the progression of units vs the first edition, but note that Area rather than Perimeter is now the Measure unit included in Term A. You can see the new progression of lessons within the units by looking at the progression file for Lower KS2.

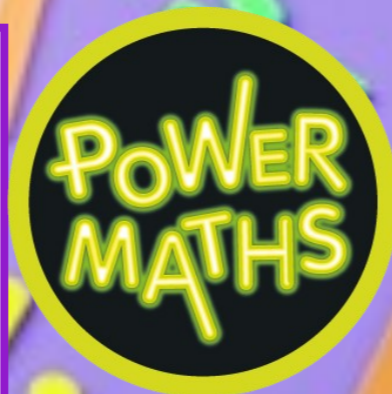
Resources to have ready: in the Autumn term you are mostly going to need place value counters and grids.



Week	Term		
	Autumn	Spring	Summer
1	Unit 1: Place value – 4-digit numbers (1) (8 lessons)	Unit 6: Multiplication and division (2) (16 lessons)	Unit 11: Decimals (2) (7 lessons)
2			
3	Unit 2: Place value – 4-digit numbers (2) (8 lessons)	Unit 7: Perimeter (6 lessons)	Unit 12: Money (6 lessons)
4			
5	Unit 3: Addition and subtraction (16 lessons)	Unit 8: Fractions (1) (9 lessons)	Unit 13: Time (5 lessons)
6			
7	Unit 4: Area (5 lessons)	Unit 9: Fractions (2) (8 lessons)	Unit 14: Geometry – angles and 2D shapes (8 lessons)
8			
9	Unit 5: Multiplication and division (1) (12 lessons)	Unit 10: Decimals (1) (12 lessons)	Unit 15: Statistics (6 lessons)
10			
11			Unit 16: Position and direction (6 lessons)
12			

Key vocabulary list – Year 4

Textbook and unit	Key vocabulary highlighted in this unit	New vocabulary
4A Unit 1: Place value – 4-digit numbers (1)	tens hundreds thousands partition place value number line multiplies digit	
4A Unit 2: Place value – 4-digit numbers (2)	thousands ascending descending round order multiple round up round down greater than (>) less than (<)	round round up round down
4A Unit 3: Addition and subtraction	addition total subtraction more than less than column method estimate how much strategy efficient accurate exact fact	how much strategy efficient accurate exact
4A Unit 4: Measure – area	space area rectangle square rectilinear shape unit larger greater smaller	space area unit rectilinear shape
4A Unit 5: Multiplication and division (1)	multiple (×) divide (÷) multiplication fact division fact factor groups of times-table array product fact family related fact	groups of product factor



$$\begin{array}{r} \text{Th} \quad \text{H} \quad \text{T} \quad \text{O} \\ 2 \quad 48 \quad 10 \quad 2 \\ - \quad \quad \quad \quad \quad \\ \hline \end{array}$$

$$\begin{array}{r} \text{Th} \quad \text{H} \quad \text{T} \quad \text{O} \\ 2 \quad 48 \quad 918 \quad 12 \\ - \quad \quad \quad \quad \quad \\ \hline \end{array}$$

$$\begin{array}{r} \text{Th} \quad \text{H} \quad \text{T} \quad \text{O} \\ 2 \quad 48 \quad 918 \quad 12 \\ - \quad \quad \quad \quad \quad \\ \hline 2 \quad 2 \quad 5 \quad 9 \end{array}$$

Textbook and unit	Key vocabulary highlighted in this unit	New vocabulary
4B Unit 6: Multiplication and division (2)	multiply divide times-tables remainder bar model factor pair factors	factor pair
4B Unit 7: Length and perimeter	length width perimeter distance rectangle square rectilinear shape centimetre (cm) metre (m) kilometre (km) equivalent to regular polygon	kilometre regular polygon
4B Unit 8: Fractions (1)	mixed number improper fraction numerator denominator fraction equivalent simplify simplest fraction	mixed number improper fraction simplest fraction simplify
4B Unit 9: Fractions (2)	numerator denominator add subtract improper fraction mixed number fraction of an amount	
4B Unit 10: Decimals (1)	tens ones decimal point tenths hundredths equivalent decimal centimetre millimetre	decimal decimal point hundredths

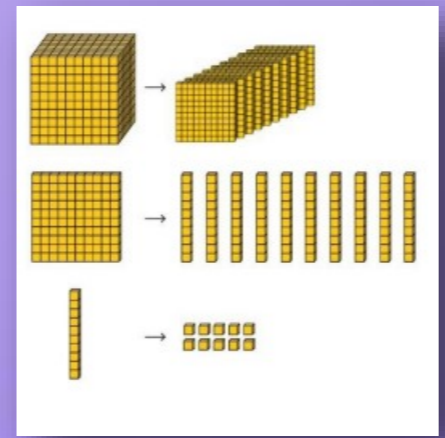
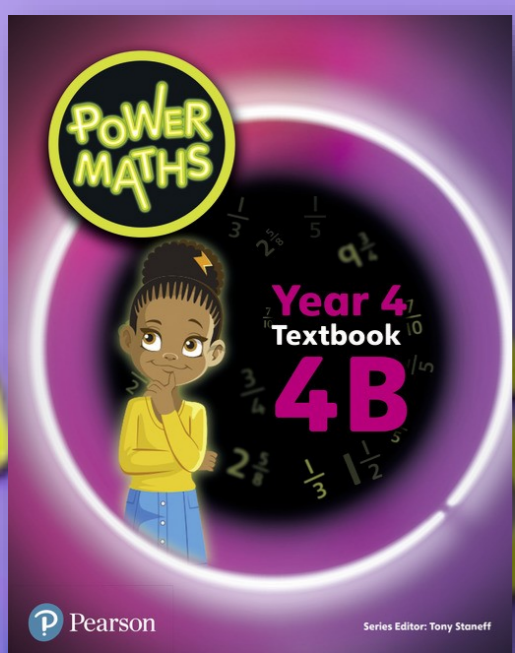
Textbook and unit	Key vocabulary highlighted in this unit	New vocabulary
4C Unit 11: Decimals (2)	tenths hundredths 0.1 and 0.01 equivalent whole number round greater than (>) less than (<) equal to (=) order compare decimal place ascending descending	decimal place
4C Unit 12: Money	notes coins pounds (£) pence (p) add subtract change total order greater than (>) less than (<) cheaper more expensive estimate over estimate under estimate	more expensive over estimate under estimate cheaper
4C Unit 13: Time	convert compare units of time seconds minutes hours days weeks months years 12-hour 24-hour analogue digital am/pm	unit of time 24-hour 12-hour

Example 1: $\begin{array}{r} \text{Th} \quad \text{H} \quad \text{T} \quad \text{O} \\ 1 \quad 2 \quad 5 \quad 0 \\ - \quad \quad \quad \quad \quad \\ \hline \end{array}$

Example 2: $\begin{array}{r} \text{Th} \quad \text{H} \quad \text{T} \quad \text{O} \\ 1 \quad 2 \quad 5 \quad 0 \\ - \quad \quad \quad \quad \quad \\ \hline \end{array}$

Example 3: $\begin{array}{r} \text{Th} \quad \text{H} \quad \text{T} \quad \text{O} \\ 1 \quad 2 \quad 5 \quad 0 \\ - \quad \quad \quad \quad \quad \\ \hline \end{array}$

Example 4: $\begin{array}{r} \text{Th} \quad \text{H} \quad \text{T} \quad \text{O} \\ 1 \quad 2 \quad 5 \quad 0 \\ - \quad \quad \quad \quad \quad \\ \hline \end{array}$



Textbook and unit	Key vocabulary highlighted in this unit	New vocabulary
4C Unit 14: Geometry – angles and 2D shapes	quadrilateral triangle regular irregular interior angle angle acute obtuse polygon right angle symmetric isosceles scalene equilateral line of symmetry reflective symmetry	isosceles scalene equilateral interior angles reflective symmetry symmetric
4C Unit 15: Statistics	data line graph pictogram bar chart tale altogether more than compare	line graph continuous
4C Unit 16: Geometry – position and direction	position horizontal vertical up down left right coordinate plot vertex vertices point grid translate	grid coordinates point translation