

*Addition and
Subtraction*

1 0 0 1 2 2

LO: To add numbers which require an exchange

I know that when I add the number will increase and that I am adding 2 numbers together.

I can set out my column calculation in the correct place value columns

I understand that when the numbers in the column and to 10 or more, I need to make an exchange.

Flashback 4

Year 3 | Week 4 | Day 4

5×8

Subtract 5 from 347

Order the numbers from largest to smallest.

562, 507, 570, 558

How many hundreds are in 973?

What time is shown on the clock?



White Rose Maths

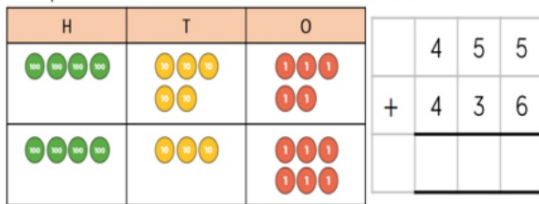
Flashback 4

Year 4 | W

- 1) Calculate $352 + 229$
- 2) Write 23 in Roman Numerals.
- 3) Complete the missing number.
 $4,782 = 4,000 + 700 + \underline{\quad} + 12$
- 4) A square has sides of length 4 cm.
What is the perimeter of the square?

3

Use place value counters to calculate $455 + 436$



Eva and Ron are playing a game.
 Eva scores 351 points and Ron scores 478 points.
 How many points do they score altogether?
 How many more points does Ron score than Eva?

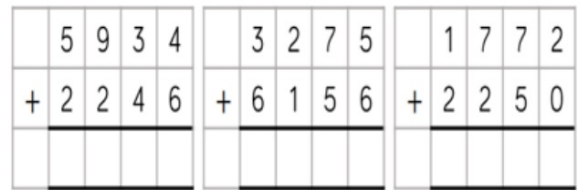
Eva and Ron play the game again.
 Eva scores 281 points, Ron scores 60 less than Eva.
 How many points do they score altogether?

Complete the models.

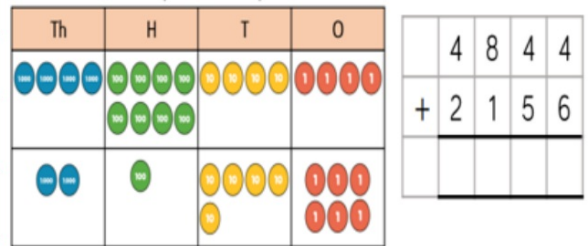


4

Use counters and a place value grid to calculate:



Find the total of 4,844 and 2,156



Complete the bar models.



3

Roll a 1 to 6 die.
Fill in a box each time you roll.

$$\square\square\square + \square\square\square =$$

Can you make the total:

- An odd number
- An even number
- A multiple of 5
- The greatest possible number
- The smallest possible number

Complete the statements to make them correct.

$$487 + 368 \quad \bigcirc \quad 487 + 468$$

$$326 + 258 \quad \bigcirc \quad 325 + 259$$

$$391 + 600 = 401 + \underline{\quad}$$

Explain why you do not have to work out the answers to compare them.

4

Dexter buys a laptop costing £1,265 and a mobile phone costing £492

How much do the laptop and the mobile phone cost altogether?

Use $<$, $>$ or $=$ to make the statements correct.

$$3,456 + 789 \quad \bigcirc \quad 1,810 + 2,436$$

$$2,829 + 1,901 \quad \bigcirc \quad 2,312 + 2,418$$

$$7,542 + 1,858 \quad \bigcirc \quad 902 + 8,496$$

Jack says,



When I add two numbers together I will only ever make up to one exchange in each column.

Do you agree?
Explain your reasoning.

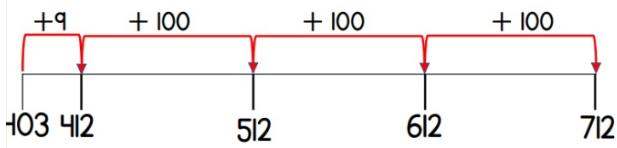
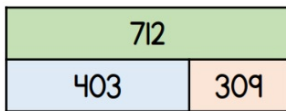
Plenary

3

True or False?

Add two 3-digit numbers - crossing 10 or 100

The bar model shows the same calculation as the number line.



White Rose Maths

True or False?

Add two 4-digit numbers

Tommy is using a place value grid to explore $2,636 + 1,424$

Th	H	T	O
1000 1000	100 100 100 100 100 100	10 10 10	1 1 1 1 1 1
1000	100 100 100 100	10 10	1 1 1 1

The calculation will require more than one exchange.



Year 3
NUMERACY
TARGET GRIDS

I can compare and order numbers up to 1000.

I can count from 0 in multiples of 4, 8, 50 and 100.

I can identify, represent and estimate numbers in different contexts.

I can find 10 or 100 more or less than a given number.

I can recognise the place value of each digit in a three-digit number.

I can solve number problems and practical problems.

I can read and write numbers to 100 in numerals and in words.

I can solve missing number problems.

I can estimate the answer to a calculation and use inverse operations to check

I can solve addition and subtraction problems.

I can subtract numbers up to three digits using an efficient written method.

I can add numbers up to three digits using an efficient written method.

I can add and subtract a 3 digit-number and hundreds mentally.

I can add and subtract a 3 digit-number and tens mentally.

I can add and subtract a 3 digit-number and ones mentally.

I can solve multiplication and division problems, using scaling.

I can solve multiplication and division problems.

I can use mental strategies to multiply a 2-digit number by a 1 digit number.

I can write and calculate statements for X and +. Using the multiplication tables that I know.

I can recall and use multiplication and division facts for the 8 times table.

I can recall and use multiplication and division facts for the 4 times table.

I can recall and use multiplication and division facts for the 3 times table.

I can use efficient written methods to multiply a 2 digit and a 1 digit number.

I can measure the perimeter of simple 2-D shapes

I can estimate and read time to the nearest minute and compare times using appropriate vocabulary.

I can tell the time using Roman numerals from I to XII

I can tell and write the time from an analogue clock and 12-hour and 24-hour clocks.

I can add and subtract amounts of money to give change using £ and p.

I can measure and compare, add and subtract volume/capacity (l/ml)

I can measure and compare, add and subtract mass (kg/g)

I can measure and compare, add and subtract lengths (m/cm/mm)

I can solve problems involving fractions

I can compare and order fractions, and fractions with the same denominator.

I can add and subtract fractions with the same denominator within one whole.
$$\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$$

I can recognise and show, using diagrams, equivalent fractions.

I can recognise and use fractions as numbers.

I can find and write fractions for a set of objects.

I recognise that tenths arise from dividing an object into 10 equal parts.

I can count up and down in tenths.

I can identify horizontal and vertical lines and pairs of perpendicular and parallel lines.

I identify whether angles are greater than or less than a right angle.

I can recognise that two right angles make a half-turn. 3 make 3/4 of a turn and 4 make a complete turn.

I can identify right angles.

I can recognise angles as a property of shape or a description of a turn.

I can recognise 3-D shapes in different orientations.

I can make 3-D shape using modelling materials.

I can draw 2-D shapes.

I know how many seconds are in a minute, days in each month, year and leap year.

I can solve two-step problems using presented data

I can solve one-step problems using presented data

I can interpret and present data using tables.

I can interpret and present data using pictograms.

I can interpret and present data using bar charts.

Number and Place Value

Addition and Subtraction

Multiplication and Division

Measurements

Fractions

Geometry

Statistics

**Year 4
NUMERACY
TARGET GRIDS**

I can read Roman numerals to 100 (I to C) and know that over time the numeral system changed to include the concept of zero and place value .

I can solve number and practical problems

I can round any number to the nearest 10, 100 or 1000

I can identify, represent and estimate numbers.

I can compare and order numbers beyond 1000.

I can recognise the place value of each digit in a four -digit number.

I can count backwards through zero to include negative numbers.

I can find 1000 more or less than a given number

I can count in multiples of 6, 7, 9, 25 and 1000

I can solve subtraction two step problems deciding which operations and methods to use and why.

I can solve addition two step problems deciding which operations and methods to use and why.

I can use inverse operations to check answers to a calculation.

I can estimate to check answers to a calculation.

I can subtract numbers with up to 4 digits using efficient methods.

I can add numbers with up to 4 digits using efficient methods.

I know factor pairs, using my times table knowledge.

I can solve multiplication and division problems, including simple scaling.

I can multiply a three — digit number by a one—digit number using a formal written method.

I can multiply a two—digit number using a formal written method.

I can use place value and known derived facts to multiply 3 numbers .

I can use place value and known derived facts to multiply and divide men-

I can explain commutativity in multiplication.

I can recall multiplication and division facts for times tables up to 12 x 12.

I solve simple measure and money problems involving fractions and decimals to two places.

I can solve problems involving converting from: hours to minutes; minutes to seconds; years to months; weeks to days.

I can read, write and convert time between analogue and digital 12— and 24—hour clocks.

I can estimate, compare and calculate different measure, including money in pounds and pence.

I can find the area of rectilinear shapes by counting squares.

I measure and calculate the perimeter of a rectilinear shape in cm and m

I can convert between different units of measure

I round decimals with one decimal place to the nearest whole number and compare.

I can find the effect of \div a number by 10 and 100 and identify the value of the digits

I can recognise and write decimal equivalents to $1/2$, $1/4$, and $3/4$.

I can recognise and write decimal equivalents of any number of tenths or hundredths .

I can add and subtract fractions with the same denominator.

I can count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.

I can recognise and show, using diagrams, families of common equivalent fractions.

I solve problems finding fractions of amounts including non -unit fractions like $3/4$

I can plot specified points and draw sides to complete a given polygon.

I describe movements between positions as translations of a given unit to the left/right and up/down.

I can describe positions on a 2-D grid as co-ordinates in the first quadrant.

I can complete a simple symmetric figure with respect to a specific line of symmetry.

I can identify lines of symmetry in 2-D shapes presented in different orientations.

I can identify acute and obtuse angles and compare and order up to two right angles by size.

I can compare and classify geometric shapes, including quadrilaterals and triangles

I can draw line graphs.

I can solve 'difference' problems using information presented in bar charts, pictograms, tables and other graphs.

I can solve 'sum' problems using information presented in bar charts, pictograms, tables and other graphs.

I can solve 'comparison' problems using information presented in bar charts, pictograms, tables and other graphs.

I can interpret and present data using time graphs.

I can interpret and present data using bar charts.

Number and Place Value

Addition and Subtraction

Multiplication and Division

Measurements

Fractions and Decimals

Geometry

Statistics

1 1. 0 1. 2 2

LO: To subtract numbers requiring an exchange.

I know that when I am subtracting, I have one number and am taking another number away from it so my answer decreases.

I can make an exchange to carry out the calculation correctly.

I understand that when there is a zero for a place value holder, I need to make an exchange in the next column.



Complete the calculations using place value counters.

372 - 145

H	T	O
3 tens	7 tens	2 ones

629 - 483

H	T	O
6 tens	2 tens	9 ones

Complete the column subtractions showing any exchanges.

H	T	O
6	8	3
-	2	3

H	T	O
2	3	4
-	1	9

H	T	O
5	0	7
-	4	5

3

Use place value counters and the column method to calculate:

$$5,783 - 844 \quad 6,737 - 759 \quad 8,252 - 6,560$$

$$1,205 - 398 \quad 2,037 - 889 \quad 2,037 - 1,589$$

4

A shop has 8,435 magazines.
367 are sold in the morning and 579 are sold in the afternoon.

How many magazines are left?

8,435		
367	579	?

There are ___ magazines left.

Find the missing 4-digit number.

	Th	H	T	O
	?	?	?	?
+	4	6	7	8
	7	4	3	1

Work out the missing digits.

	H	T	O
	5	?	3
-	2	1	8
	3	1	5

	H	T	O
	?	0	?
-	2	?	8
	2	4	6

Amir and Tommy solve a problem.

When I subtract 546 from 3,232 my answer is 2,714



Amir



Tommy

When I subtract 546 from 3,232 my answer is 2,686

Who is correct?
Explain your reasoning.
Why is one of the answers wrong?

3

Eva is working out $406 - 289$

Here is her working out:

Step 1	Step 2
$\begin{array}{r} \overset{3}{\cancel{4}}0\overset{1}{6} \\ - 289 \\ \hline 7 \end{array}$	$\begin{array}{r} \overset{2}{\cancel{4}}\overset{1}{0}\overset{1}{6} \\ - 289 \\ \hline 027 \end{array}$

Explain her mistake.

4

There were 2,114 visitors to the museum on Saturday.
650 more people visited the museum on Saturday than on Sunday.



Altogether how many people visited the museum over the two days?

What do you need to do first to solve this problem?

Plenary

True or False?

Subtract 3-digits from 3-digits - exchange

Number sentence has been correctly matched to the model.

$311 - 202 = ?$

H	T	O
100		1 1 1
		1 1 1

	T	O

$311 - 211 = ?$

True or False?

Subtract two 4-digit numbers - more than one exchange

Tommy is using a place value grid to explore $4,211 - 1,288$

Th	H	T	O
1000 1000 1000 1000	100 100	10	1

I will need to do 2 exchanges to find the answer.

Year 3
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TARGET GRIDS

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Number and Place Value

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Multiplication and Division

I can measure the perimeter of simple 2-D shapes

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I can measure and compare, add and subtract mass (kg/g)

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Measurements

I can solve problems involving fractions

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$$\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$$

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Fractions

I can identify horizontal and vertical lines and pairs of perpendicular and parallel lines.

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I can identify right angles.

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Geometry

I know how many seconds are in a minute, days in each month, year and leap year.

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I can solve one-step problems using presented data

I can interpret and present data using tables.

I can interpret and present data using pictograms.

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Statistics

Year 4 NUMERACY TARGET GRIDS							
I can read Roman numerals to 100 (I to C) and know that over time the numeral system changed to include the concept of zero and place value .	Year 4 NUMERACY TARGET GRIDS	I know factor pairs, using my times table knowledge.	I solve simple measure and money problems involving fractions and decimals to two places.	I round decimals with one decimal place to the nearest whole number and compare.	I solve problems finding fractions of amounts including non-unit fractions like $\frac{3}{4}$		
I can solve number and practical problems		I can solve multiplication and division problems, including simple scaling.	I can solve problems involving converting from: hours to minutes; minutes to seconds; years to months; weeks to days.	I can find the effect of \div a number by 10 and 100 and identify the value of the digits	I can plot specified points and draw sides to complete a given polygon.	I can draw line graphs.	
I can round any number to the nearest 10, 100 or 1000		I can solve subtraction two step problems deciding which operations and methods to use and why.	I can multiply a three — digit number by a one—digit number using a formal written method.	I can read, write and convert time between analogue and digital 12— and 24—hour clocks.	I can recognise and write decimal equivalents to $\frac{1}{2}$, $\frac{1}{4}$, and $\frac{3}{4}$.	I describe movements between positions as translations of a given unit to the left/right and up/down.	I can solve 'difference' problems using information presented in bar charts, pictograms, table and other graphs.
I can identify, represent and estimate numbers.		I can solve addition two step problems deciding which operations and methods to use and why.	I can multiply a two—digit number by a one—digit number using a formal written method.	I can estimate, compare and calculate different measure, including money in pounds and pence.	I can recognise and write decimal equivalents of any number of tenths or hundredths .	I can describe positions on a 2-D grid as co-ordinates in the first quadrant.	I can solve 'sum' problems using information presented in bar charts, pictograms, table and other graphs.
I can compare and order numbers beyond 1000.		I can use inverse operations to check answers to a calculation.	I can use place value and known derived facts to multiply 3 numbers .	I can find the area of rectilinear shapes by counting squares.	I can add and subtract fractions with the same denominator.	I can complete a simple symmetric figure with respect to a specific line of symmetry.	I can solve 'comparison' problems using information presented in bar charts, pictograms, table and other graphs.
I can recognise the place value of each digit in a four—digit number.		I can estimate to check answers to a calculation.	I can use place value and known derived facts to multiply and divide men-	I measure and calculate the perimeter of a rectilinear shape in cm and m	I can count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.	I can identify lines of symmetry in 2-D shapes presented in different orientations.	I can interpret and present data using time graphs.
I can count backwards through zero to include negative numbers.		I can subtract numbers with up to 4 digits using efficient methods.	I can explain commutativity in multiplication.	I can convert between different units of measure	I can recognise and show, using diagrams, families of common equivalent fractions.	I can identify acute and obtuse angles and compare and order up to two right angles by size.	I can interpret and present data using bar charts.
I can find 1000 more or less than a given number		I can add numbers with up to 4 digits using efficient methods.	I can recall multiplication and division facts for times tables up to 12×12 .			I can compare and classify geometric shapes, including quadrilaterals and triangles	
I can count in multiples of 6, 7, 9, 25 and 1000							
Number and Place Value		Addition and Subtraction	Multiplication and Division	Measurements	Fractions and Decimals	Geometry	Statistics

1 2 0 1 2 2

LO: To use efficient subtraction

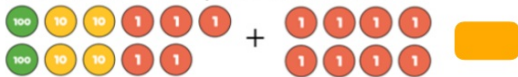
I know that when a minuend is a multiple of 100s, it can be more efficient to take one off each number before completing the subtraction.

I can compare the different methods of subtraction.

I understand how to use my knowledge of mental subtraction and column subtraction to help me find the most efficient method.

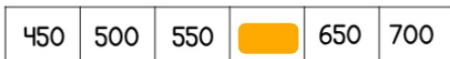
Flashback 4 Year 3 | Week 4 | Day 5

Find the total of the place value counters.



7×2

Complete the number track.



Complete the number sentence.

$447 = 4 \text{ hundreds} + \underline{\quad} \text{ tens} + 7 \text{ ones}$

How many sides does a triangle have?



Flashback 4 Year 4 | Week 5

- 1) Add 3 hundreds to 456
- 2) Complete the sequence.
225, 250, 275, 300, 325,
- 3) Write the numbers in ascending order.
598 5,000 2,098 980
- 4) What is $\frac{1}{3}$ of 24?

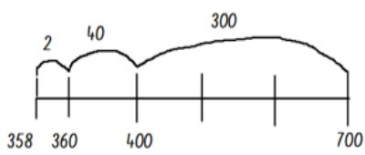
3

Ron, Rosie and Dexter are calculating $700 - 358$

Here are their methods:

<p>Ron</p> <table style="border-collapse: collapse; margin-left: 20px;"> <tr><td style="padding-right: 10px;">HTO</td><td></td></tr> <tr><td style="padding-right: 10px;">700</td><td></td></tr> <tr><td style="padding-right: 10px;">- 358</td><td></td></tr> <tr><td style="border-top: 1px solid black; padding-top: 5px;"></td><td></td></tr> <tr><td style="border-top: 1px solid black; padding-top: 5px;"></td><td></td></tr> </table>	HTO		700		- 358						<p>Rosie</p> <table style="border-collapse: collapse; margin-left: 20px;"> <tr><td style="padding-right: 10px;">HTO</td><td></td></tr> <tr><td style="padding-right: 10px;">699</td><td></td></tr> <tr><td style="padding-right: 10px;">- 357</td><td></td></tr> <tr><td style="border-top: 1px solid black; padding-top: 5px;"></td><td></td></tr> <tr><td style="border-top: 1px solid black; padding-top: 5px;"></td><td></td></tr> </table>	HTO		699		- 357					
HTO																					
700																					
- 358																					
HTO																					
699																					
- 357																					

Dexter



Whose method is most efficient?

Use the different methods to calculate $400 - 283$

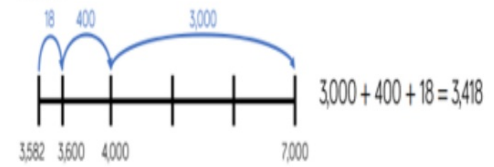
4

Ron, Rosie and Dexter are calculating $7000 - 3582$

Here are their methods:

<p>Ron</p> <table style="border-collapse: collapse; margin-left: 20px;"> <tr><th>Th</th><th>H</th><th>T</th><th>O</th></tr> <tr><td style="text-align: center;">6</td><td style="text-align: center;">9</td><td style="text-align: center;">9</td><td style="text-align: center;">0</td></tr> <tr><td style="text-align: center;">-</td><td style="text-align: center;">3</td><td style="text-align: center;">5</td><td style="text-align: center;">8</td></tr> <tr><td style="text-align: center;">3</td><td style="text-align: center;">4</td><td style="text-align: center;">1</td><td style="text-align: center;">8</td></tr> </table>	Th	H	T	O	6	9	9	0	-	3	5	8	3	4	1	8	<p>Rosie</p> <table style="border-collapse: collapse; margin-left: 20px;"> <tr><th>Th</th><th>H</th><th>T</th><th>O</th></tr> <tr><td style="text-align: center;">6</td><td style="text-align: center;">9</td><td style="text-align: center;">9</td><td style="text-align: center;">9</td></tr> <tr><td style="text-align: center;">-</td><td style="text-align: center;">3</td><td style="text-align: center;">5</td><td style="text-align: center;">8</td></tr> <tr><td style="text-align: center;">3</td><td style="text-align: center;">4</td><td style="text-align: center;">1</td><td style="text-align: center;">8</td></tr> </table>	Th	H	T	O	6	9	9	9	-	3	5	8	3	4	1	8
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6	9	9	0																														
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Dexter



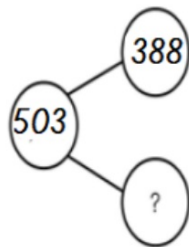
Whose method is most efficient?

Use the different methods to calculate $4000 - 2831$

3

Find the missing numbers.
What methods did you use?

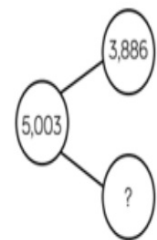
346	
298	?



4

Find the missing numbers.
What methods did you use?

3,465	
2,980	?



Amir has £1,000



He buys a scooter for £345 and a skateboard for £110

How much money does he have left?

Show 3 different methods of finding the answer.

Explain how you completed each one.

Which is the most effective method?

Amir has £1,000



He buys a scooter for £345 and a skateboard for £110

How much money does he have left?

Show 3 different methods of finding the answer.

Explain how you completed each one.

Which is the most effective method?

Plenary

True or False?

Efficient subtraction

To avoid repeated exchanges, Eva is using the calculation $4,999 - 3,723$ to solve the calculation $5,000 - 3,724$



If I reduce each number by one, the difference between the numbers will stay the same.

Year 3 NUMERACY TARGET GRIDS						
I can compare and order numbers up to 1000.	I can solve missing number problems.	I can solve multiplication and division problems, using scaling.	I can measure the perimeter of simple 2-D shapes	I can solve problems involving fractions	I can identify horizontal and vertical lines and pairs of perpendicular and parallel lines.	I know how many seconds are in a minute, days in each month, year and leap year.
I can count from 0 in multiples of 4, 8, 50 and 100.	I can estimate the answer to a calculation and use inverse operations to check	I can solve multiplication and division problems.	I can estimate and read time to the nearest minute and compare times using appropriate vocabulary.	I can compare and order fractions, and fractions with the same denominator.	I identify whether angles are greater than or less than a right angle.	
I can identify, represent and estimate numbers in different contexts.	I can solve addition and subtraction problems.	I can use mental strategies to multiply a 2-digit number by a 1 digit number.	I can tell the time using Roman numerals from I to XII	I can add and subtract fractions with the same denominator within one whole. $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$	I can recognise that two right angles make a half-turn. 3 make 3/4 of a turn and 4 make a complete turn.	I can solve two-step problems using presented data
I can find 10 or 100 more or less than a given number.	I can subtract numbers up to three digits using an efficient written method.	I can write and calculate statements for X and +. Using the multiplication tables that I know.	I can tell and write the time from an analogue clock and 12-hour and 24-hour clocks.	I can recognise and show, using diagrams, equivalent fractions.	I can identify right angles.	I can solve one-step problems using presented data
I can recognise the place value of each digit in a three-digit number.	I can add numbers up to three digits using an efficient written method.	I can recall and use multiplication and division facts for the 8 times table.	I can add and subtract amounts of money to give change using £ and p.	I can recognise and use fractions as numbers.	I can recognise angles as a property of shape or a description of a turn.	I can interpret and present data using tables.
I can solve number problems and practical problems.	I can add and subtract a 3 digit-number and hundreds mentally.	I can recall and use multiplication and division facts for the 4 times table.	I can measure and compare, add and subtract volume/capacity (l/ml)	I can find and write fractions for a set of objects.	I can recognise 3-D shapes in different orientations.	I can interpret and present data using pictograms.
I can read and write numbers to 100 in numerals and in words.	I can add and subtract a 3 digit-number and tens mentally.	I can recall and use multiplication and division facts for the 3 times table.	I can measure and compare, add and subtract mass (kg/g)	I recognise that tenths arise from dividing an object into 10 equal parts.	I can make 3-D shape using modelling materials.	I can interpret and present data using bar charts.
	I can add and subtract a 3 digit-number and ones mentally.	I can use efficient written methods to multiply a 2 digit and a 1 digit number.	I can measure and compare, add and subtract lengths (m/cm/mm)	I can count up and down in tenths.	I can draw 2-D shapes.	
Number and Place Value	Addition and Subtraction	Multiplication and Division	Measurements	Fractions	Geometry	Statistics

Year 4 NUMERACY TARGET GRIDS						
I can read Roman numerals to 100 (I to C) and know that over time the numeral system changed to include the concept of zero and place value .		I know factor pairs, using my times table knowledge.	I solve simple measure and money problems involving fractions and decimals to two places.	I round decimals with one decimal place to the nearest whole number and compare.		I solve problems finding fractions of amounts including non-unit fractions like $\frac{3}{4}$
I can solve number and practical problems	I can solve subtraction two step problems deciding which operations and methods to use and why.	I can solve multiplication and division problems, including simple scaling.	I can solve problems involving converting from: hours to minutes; minutes to seconds; years to months; weeks to days.	I can find the effect of \div a number by 10 and 100 and identify the value of the digits		I can plot specified points and draw sides to complete a given polygon.
I can round any number to the nearest 10, 100 or 1000	I can solve addition two step problems deciding which operations and methods to use and why.	I can multiply a three — digit number by a one—digit number using a formal written method.	I can read, write and convert time between analogue and digital 12— and 24—hour clocks.	I can recognise and write decimal equivalents to $\frac{1}{2}$, $\frac{1}{4}$, and $\frac{3}{4}$.		I describe movements between positions as translations of a given unit to the left/right and up/down.
I can identify, represent and estimate numbers.	I can use inverse operations to check answers to a calculation.	I can multiply a two—digit number by a one—digit number using a formal written method.	I can estimate, compare and calculate different measure, including money in pounds and pence.	I can recognise and write decimal equivalents of any number of tenths or hundredths .		I can describe positions on a 2-D grid as co-ordinates in the first quadrant.
I can compare and order numbers beyond 1000.	I can estimate to check answers to a calculation.	I can use place value and known derived facts to multiply 3 numbers .	I can find the area of rectilinear shapes by counting squares.	I can add and subtract fractions with the same denominator.		I can complete a simple symmetric figure with respect to a specific line of symmetry.
I can recognise the place value of each digit in a four—digit number.	I can explain commutativity in multiplication.	I can use place value and known derived facts to multiply and divide men-	I measure and calculate the perimeter of a rectilinear shape in cm and m	I can count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.		I can identify lines of symmetry in 2-D shapes presented in different orientations.
I can count backwards through zero to include negative numbers.	I can add numbers with up to 4 digits using efficient methods.	I can recall multiplication and division facts for times tables up to 12×12 .	I can convert between different units of measure	I can recognise and show, using diagrams, families of common equivalent fractions.		I can identify acute and obtuse angles and compare and order up to two right angles by size.
I can find 1000 more or less than a given number						I can interpret and present data using time graphs.
I can count in multiples of 6, 7, 9, 25 and 1000						I can interpret and present data using bar charts.
Number and Place Value	Addition and Subtraction	Multiplication and Division	Measurements	Fractions and Decimals	Geometry	Statistics

1 3 . 0 1 . 2 2

LO: To use checking strategies to see if my answers are correct.

I know that I can try adding in a different order to see if I have the same answer.

I can decide if my answer is sensible

I understand that I can use the inverse to help me check if my answer is correct.



3

Use a subtraction to check the answer to the addition.

$$134 + 45 = 179$$

Alex has baked 145 cakes for a bun sale.
She sells 78 cakes.
How many does she have left?

Show your answer using a bar model and check your answer using an addition.

Write all the calculations you could make using these cards.

660

120

540

+

-

=

4

$$2,300 + 4,560 = 6,860$$

Use a subtraction to check the answer to the addition.
Is there more than one subtraction we can do to check the answer?

If we know $3,450 + 4,520 = 7,970$, what other addition and subtraction facts do we know?

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} - \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} - \underline{\quad} = \underline{\quad}$$

Does the equal sign have to go at the end? Could we write an addition or subtraction with the equals sign at the beginning?
How many more facts can you write now?

3



Mo

If I add two numbers together, I can check my answer by using a subtraction of the same numbers after e.g. to check $23 + 14$, I can do $14 - 23$

Do you agree? Explain why.

I completed an addition and then used the inverse to check my calculation.

When I checked my calculation, the answer was 250.

One of the other numbers was 355.

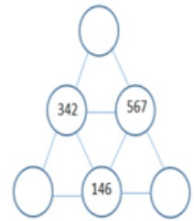
What could the calculation be?

___ + ___ = ___

___ - ___ = 250

4

Complete the pyramid.
Which calculations do you use to find the missing numbers?
Which strategies do you use to check your calculations?



Here is a number sentence.

$350 + 278 + 250$

Add the numbers in different orders to find the answer.

Is one order of adding easier? Why?

Create a rule when adding more than one number of what to look for in a number.

I completed an addition and then used the inverse to check my calculation. When I checked my calculation, the answer was 3,800. One of the other numbers was 5,200. What could the calculation be?

___ + ___ = ___

___ - ___ = 3,800

Plenary

True or False?

Check answers

$$6 \times 5 = 6 + 6 + 6 + 6 + 6$$

True or False?

Check

You can use addition to show that one of the calculations is incorrect.

	6	'3		
	7	4	'2	7
-	2	6	4	1
	4	7	8	6

	8	4	3	
-	4	5	2	
	4	1	1	

Year 3

NUMERACY
TARGET GRIDS

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I can add numbers up to three digits using an efficient written method.

I can add and subtract a 3 digit-number and hundreds mentally.

I can add and subtract a 3 digit-number and tens mentally.

I can add and subtract a 3 digit-number and ones mentally.

I can solve multiplication and division problems, using scaling.

I can solve multiplication and division problems.

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I can recall and use multiplication and division facts for the 8 times table.

I can recall and use multiplication and division facts for the 4 times table.

I can recall and use multiplication and division facts for the 3 times table.

I can use efficient written methods to multiply a 2 digit and a 1 digit number.

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I can measure and compare, add and subtract lengths (m/cm/mm)

I can solve problems involving fractions

I can compare and order fractions, and fractions with the same denominator.

I can add and subtract fractions with the same denominator within one whole.
$$\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$$

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I can identify right angles.

I can recognise angles as a property of shape or a description of a turn.

I can recognise 3-D shapes in different orientations.

I can make 3-D shape using modelling materials.

I can draw 2-D shapes.

I know how many seconds are in a minute, days in each month, year and leap year.

I can solve two-step problems using presented data

I can solve one-step problems using presented data

I can interpret and present data using tables.

I can interpret and present data using pictograms.

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Number and Place Value

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**Year 4
NUMERACY
TARGET GRIDS**

I can read Roman numerals to 100 (I to C) and know that over time the numeral system changed to include the concept of zero and place value .

I know factor pairs, using my times table knowledge.

I solve simple measure and money problems involving fractions and decimals to two places.

I round decimals with one decimal place to the nearest whole number and compare.

I solve problems finding fractions of amounts including non-unit fractions like $\frac{3}{4}$

I can solve number and practical problems

I can solve subtraction two step problems deciding which operations and methods to use and why.

I can solve multiplication and division problems, including simple scaling.

I can solve problems involving converting from: hours to minutes; minutes to seconds; years to months; weeks to days.

I can find the effect of \div a number by 10 and 100 and identify the value of the digits

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I can round any number to the nearest 10, 100 or 1000

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I can multiply a three — digit number by a one—digit number using a formal written method.

I can read, write and convert time between analogue and digital 12— and 24—hour clocks.

I can recognise and write decimal equivalents to $\frac{1}{2}$, $\frac{1}{4}$, and $\frac{3}{4}$.

I describe movements between positions as translations of a given unit to the left/right and up/down.

I can solve 'difference' problems using information presented in bar charts, pictograms, tables and other graphs.

I can identify, represent and estimate numbers.

I can use inverse operations to check answers to a calculation.

I can multiply a two—digit number by a one—digit number using a formal written method.

I can estimate, compare and calculate different measure, including money in pounds and pence.

I can recognise and write decimal equivalents of any number of tenths or hundredths .

I can describe positions on a 2-D grid as co-ordinates in the first quadrant.

I can solve 'sum' problems using information presented in bar charts, pictograms, tables and other graphs.

I can compare and order numbers beyond 1000.

I can estimate to check answers to a calculation.

I can use place value and known derived facts to multiply 3 numbers .

I can find the area of rectilinear shapes by counting squares.

I can add and subtract fractions with the same denominator.

I can complete a simple symmetric figure with respect to a specific line of symmetry.

I can solve 'comparison' problems using information presented in bar charts, pictograms, tables and other graphs.

I can recognise the place value of each digit in a four —digit number.

I can subtract numbers with up to 4 digits using efficient methods.

I can use place value and known derived facts to multiply and divide men-

I measure and calculate the perimeter of a rectilinear shape in cm and m

I can count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.

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1 5. 0 1. 2 2

at the equation with drawings.

. I multiply by 10 my answer gets 10 times bigger.

LO: To multiply by 10 and 100

I know how to represent the equation with drawings.

I can multiply by 10 and 100.

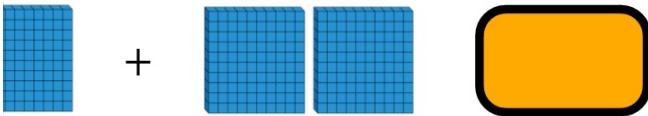
I understand that when I multiply by 10 or 100, my answer gets 10 or 100 times bigger.

Flashback 4 Year 3 | Week 5 | Day 2

tens from 452

6×5

hundreds are there altogether?



the number sentence.

= 5 hundreds + tens + 12 ones

half-turns are there in a full turn?

White Rose

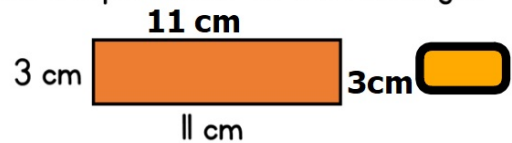
Flashback 4 Year 4

1) Find the difference between 7,000 and 3,465

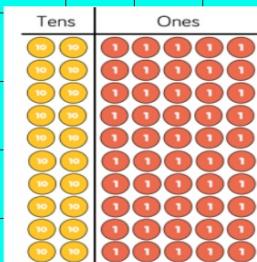
2) Subtract 1,876 from 5,295

3) Round 3,920 to the nearest 1,000

4) Find the perimeter of the rectangle.



All



Write the calculation shown by the place value counters.

Year 4

Use a place value grid and counters to calculate:

7×10

63×10

$80 \times$

7×100

63×100

$80 \times$

Year 3

Use counters to calculate:

3×3

4×10

12×10

Show your answers on a place value grid

Calculate and prove your answers with drawing

Use $<$, $>$ or $=$ to make the statements correct.

75×100



75×10

39×100



$39 \times 10 \times$

460×10



100×47

3

Always, Sometimes, Never

If you write a whole number in a place value grid and multiply it by 10, all the digits move one column to the left.

Annie has multiplied a whole number by 10

Her answer is between 440 and 540

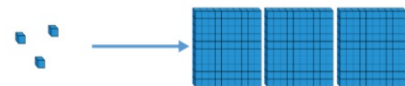
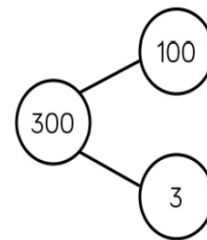
What could her original calculation be?

How many possibilities can you find?

4

Which representation does **not** show multiplying by 100?

Explain your answer.



Plenary

True or False?

$$6,720 \div 10 = 672$$

Th	H	T	O
6	7	2	0

To divide by 10, each of the digits moves one place to the right.



Year 3
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I can solve number problems and practical problems.

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I can solve missing number problems.

I can estimate the answer to a calculation and use inverse operations to check

I can solve addition and subtraction problems.

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**Year 4
NUMERACY
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I can solve subtraction two step problems deciding which operations and methods to use and why.

I can solve addition two step problems deciding which operations and methods to use and why.

I can use inverse operations to check answers to a calculation.

I can estimate to check answers to a calculation.

I can subtract numbers with up to 4 digits using efficient methods.

I can add numbers with up to 4 digits using efficient methods.

I know factor pairs, using my times table knowledge.

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I can explain commutativity in multiplication.

I can recall multiplication and division facts for times tables up to 12 x 12.

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I can complete a simple symmetric figure with respect to a specific line of symmetry.

I can identify lines of symmetry in 2-D shapes presented in different orientations.

I can identify acute and obtuse angles and compare and order up to two right angles by size.

I can compare and classify geometric shapes, including quadrilaterals and triangles

I can draw line graphs.

I can solve 'difference' problems using information presented in bar charts, pictograms, tables and other graphs.

I can solve 'sum' problems using information presented in bar charts, pictograms, tables and other graphs.

I can solve 'comparison' problems using information presented in bar charts, pictograms, tables and other graphs.

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