Year 3 Learning and Progression Steps for Mathematics

What are Learning and Progression Steps (LAPS)?

The Learning and Progression Steps are designed to scaffold the learning required in order to meet the expectations of the National Curriculum. Statements in the Lancashire Key Learning for Mathematics document have been broken down into smaller steps to support teachers in planning appropriate learning opportunities. These key pieces of learning will support pupils in becoming fluent in the knowledge and skills of the curriculum and ensure that the learning is effective and sustained.

The number of steps is dependent on the learning and do **not** constitute expectations for the end of each term. The colour coding is **an approximate indicator** of end of term expectations.
Orange (including the end of previous year expectation) are the steps in learning for the autumn term.
Green are the steps in learning for the spring term.
Yellow are the steps in learning for the summer term and incorporate the end of year expectations.
The colours correspond with the structure of the Lancashire Mathematics Curriculum and reflect how often each learning objective is explicitly taught across the year. Some key learning objectives are not taught in every term, and in some cases not in the summer term. This means that end of year expectations may need to be met before the end of the summer term.

The final step in the progression for each strand of learning is the end of year expectation.

The steps are **not** of equal size and different amounts of time may be required for children to move between individual steps. For example,

Understand how multiplication and division statements can be represented using arrays	Use arrays to identify what the term 'factor' means	Use arrays to identify all the factor pairs of a given number	Identify factor pairs of a given number within the multiplication tables that they know

Progression is likely to be within the same lesson

Progression is likely to be over a series of lessons

Some learning within the same end of year expectation has been split and designed to run concurrently alongside each other. For example,

<table>
<tr><td rowspan="2">Read and write numbers up to 1000 in numerals and in words</td><td>Read multiples of 1000 to 10 000 in numerals and in words</td><td>Read multiples of 100 to 10 000 in numerals and in words</td><td>Read numbers to 10 000 where 0 is not used as a place holder</td><td>Read numbers to 10 000 where 0 is used as a place holder</td><td rowspan="2">Read and write numbers to at least 10 000</td></tr>
<tr><td>Write multiples of 1000 to 10 000 in numerals and in words</td><td>Write multiples of 100 to 10 000 in numerals and in words</td><td>Write numbers to 10 000 where 0 is not used as a place holder</td><td>Write numbers to 10 000 where 0 is used as a place holder</td></tr>
</table>

Some LAPS may need to be completed before another can be started.

Where have they come from?

The Learning and Progression Steps (LAPS) have been derived from the Lancashire Key Learning in Mathematics statements, identified primarily from the National Curriculum 2014 programmes of study.

How are they different from the Key Learning Statements?

The Learning and Progression Steps (LAPS) are smaller, progressive steps which support learning towards the Key Learning in Mathematics expectations.

How are they different from the Key Learning Indicators of Performance (KLIPs)?

The Key Learning Indicators of Performance (KLIPs) document is an assessment tool. The Learning and Progression Steps (LAPS) document is a planning tool and is not intended to be used for summative assessment purposes. However, they may support teachers in judging whether children are on track to meet the end of year expectations at different points throughout the year.

The terms ‘entering’, ‘developing’ and ‘secure’ are used in Lancashire’s assessment approach, KLIPs, as summative judgements in relation to age related expectations. Definitions for these terms can be found in the introduction to the KLIPs document.

How might Learning and Progression Steps (LAPS) in Mathematics be useful?

Learning and Progression Steps (LAPS) may be used in a number of ways. For whole class teaching, LAPS may be used to support differentiation. When planning, it may be appropriate to use LAPS statements to inform learning objectives for a session or number of sessions. Learning and Progression Steps (LAPS) in Mathematics should be selected according to the learning needs of the individual or group. Emphasis however, should always be on developing breadth and depth of learning to ensure skills, knowledge and understanding are sufficiently embedded before moving on.
The LAPS should **not** be used as an assessment tool, but they can inform teachers about children’s progress towards the end of year expectations at the end of each term.

Are LAPS consistent with the other resources from the Lancashire Mathematics Team?

Yes, the LAPS are related to the content of the Mathematics Planning Support Disc and also the Progression Towards Written Calculation Policies and the Progression in Mental Calculation Strategies.
These can be found on the website:
www.lancsngfl.ac.uk/curriculum/primarymaths

Key Learning in Mathematics – Year 3

Number – number and place value

- Count from 0 in multiples of 4, 8, 50 and 100
- Count up and down in tenths
- Read and write numbers up to 1000 in numerals and in words
- *Read and write numbers with one decimal place*
- Identify, represent and estimate numbers using different representations *(including the number line)*
- Recognise the place value of each digit in a three-digit number (hundreds, tens, ones)
- *Identify the value of each digit to one decimal place*
- *Partition numbers in different ways (e.g. 146 = 100+ 40+6 and 146 = 130+16)*
- Compare and order numbers up to 1000
- *Compare and order numbers with one decimal place*
- Find *1,* 10 or 100 more or less than a given number
- *Round numbers to at least 1000 to the nearest 10 or 100*
- *Find the effect of multiplying a one- or two-digit number by 10 and 100, identify the value of the digits in the answer*
- *Describe and extend number sequences involving counting on or back in different steps*
- *Read Roman numerals from I to XII*
- Solve number problems and practical problems involving these ideas

Number – addition and subtraction

- *Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method)*
- *Select a mental strategy appropriate for the numbers involved in the calculation*
- *Understand and use take away and difference for subtraction, deciding on the most efficient method for the numbers involved, irrespective of context*
- *Recall/use addition/subtraction facts for 100 (multiples of 5 and 10)*
- *Derive and use addition and subtraction facts for 100*
- *Derive and use addition and subtraction facts for multiples of 100 totalling 1000*
- Add and subtract numbers mentally, including:
  - a three-digit number and ones
  - a three-digit number and tens
  - a three-digit number and hundreds
- Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction
- Estimate the answer to a calculation and use inverse operations to check answers
- Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction

Number – multiplication and division

- *Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method)*
- *Understand that division is the inverse of multiplication and vice versa*
- *Understand how multiplication and division statements can be represented using arrays*
- *Understand division as sharing and grouping and use each appropriately*
- Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables
- *Derive and use doubles of all numbers to 100 and corresponding halves*
- *Derive and use doubles of all multiples of 50 to 500*
- Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods
- *Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy*
- Solve problems, including missing number problems, involving multiplication and division *(and interpreting remainders),* including positive integer scaling problems and correspondence problems in which n objects are connected to m objects

Number – fractions

- *Show practically or pictorially that a fraction is one whole number divided by another (e.g. $\frac{3}{4}$ can be interpreted as 3 ÷ 4)*
- *Understand that finding a fraction of an amount relates to division*
- Recognise that tenths arise from dividing objects into 10 equal parts and in dividing one-digit numbers or quantities by 10
- Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators
- Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators
- Recognise and show, using diagrams, equivalent fractions with small denominators
- Add and subtract fractions with the same denominator within one whole [for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$]
- Compare and order unit fractions, and fractions with the same denominators *(including on a number line)*
- *Count on and back in steps of $\frac{1}{2}$, $\frac{1}{4}$ and $\frac{1}{3}$*
- Solve problems that involve all of the above

Geometry – properties of shapes

- Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them
- Recognise angles as a property of shape or a description of a turn
- Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle
- Identify horizontal and vertical lines and pairs of perpendicular and parallel lines

Geometry – position and direction

- *Describe positions on a square grid labelled with letters and numbers*

Statistics

- *Use sorting diagrams to compare and sort objects, numbers and common 2-D and 3-D shapes and everyday objects*
- Interpret and present data using bar charts, pictograms and tables
- Solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables

Measures

- Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)
- *Continue to estimate and measure temperature to the nearest degree (°C) using thermometers*
- *Understand perimeter is a measure of distance around the boundary of a shape*
- Measure the perimeter of simple 2-D shapes
- Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks
- Estimate/read time with increasing accuracy to the nearest minute
- Record/compare time in terms of seconds, minutes, hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon, midnight
- Know the number of seconds in a minute and the number of days in each month, year and leap year
- Compare durations of events [for example to calculate the time taken by particular events or tasks]
- *Continue to recognise and use the symbols for pounds (£) and pence (p) and understand that the decimal point separates pounds/pence*
- *Recognise that ten 10p coins equal £1 and that each coin is $\frac{1}{10}$ of £1*
- Add and subtract amounts of money to give change, using both £ and p in practical contexts
- *Solve problems involving money and measures and simple problems involving passage of time*

These Learning and Progression Statements (LAPS) are designed to show the necessary steps in learning to make effective and sustainable progress within a single year. They begin with the ‘end of year’ expectation from the previous year and build up to the ‘end of year expectation’ of the current year.

The number of steps is dependent on the learning and do **not** constitute expectations for the end of each term.

The steps are **not** of equal size and different amounts of time may be required for children to move between individual steps.

	End of Year 2 expectation	Learning and Progression Statements					End of Year 3 expectation
Number and Place Value	**Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward**	Count in steps of 100 from 0 to 1000	Count in steps of 50 from 0	Count in steps of 4 from 0	Count in steps of 8 from 0		**Count from 0 in multiples of 4, 8, 50 and 100**
	Count on and back in steps of $\frac{1}{2}$ and $\frac{1}{4}$	Count up in fractional tenths ($\frac{1}{10}$) including where boundaries are crossed, e.g. $\frac{8}{10}$, $\frac{9}{10}$, $\frac{10}{10}$, $1\frac{1}{10}$, $1\frac{2}{10}$, $1\frac{1}{10}$ etc.	Count down in fractional tenths including where boundaries are crossed, e.g. $2\frac{2}{10}$, $2\frac{1}{10}$, 2, $1\frac{9}{10}$, $1\frac{8}{10}$ etc.	Count up in decimal tenths including where boundaries are crossed, e.g. 3.6, 3.7, 3.8, 3.9 4, 4.1, 4.2 etc.	Count down in decimal tenths including where boundaries are crossed, e.g. 5.3, 5.2, 5.1, 5, 4.9, 4.8 etc.		**Count up and down in tenths**
	Read and write numbers to at least 100 in numerals and in words	Read multiples of 100 up to 1000 in numerals and in words	Read numbers up to 1000 where 0 is not used as a place holder in the tens column	Read numbers up to 1000 where 0 is used as a place holder in the tens column			**Read and write numbers up to 1000 in numerals and in words**
		Write multiples of 100 up to 1000 in numerals and in words	Write numbers up to 1000 where 0 is not used as a place holder in the tens column	Write numbers up to 1000 where 0 is used as a place holder in the tens column			
	No equivalent objective in Year 2	There are no steps towards this end of year expectation					***Read and write numbers with one decimal place***
	Identify, represent and estimate numbers using different representations, including the number line	Identify and represent numbers up to 1000 using concrete materials such as base 10 apparatus	Identify and represent numbers up to 1000 using models such as place value counters, an abacus and arrow cards.	Correctly place multiples of 100 on a number line with multiples of 100 marked but not labelled (with start and end labelled 0 and 1000)	Correctly place multiples of 10 on a number line with multiples of 100 marked but not labelled (with start and end labelled 0 and 1000)		**Identify, represent and estimate numbers using different representations (including the number line)**
	Recognise the place value of each digit in a two-digit number (tens, ones)	Make and identify a three-digit number up to 1000 using concrete equipment such as base 10 apparatus	Make and identify a three-digit number up to 1000 using models such as place value counters, an abacus and arrow cards				**Recognise the place value of each digit in a three-digit number (hundreds, tens, ones)**
	No equivalent objective in Year 2	Know that the decimal points separates whole numbers (ones, tens, hundreds etc.) and decimal fractions (tenths)	Use concrete materials to make a number with one decimal place e.g. straws	Use a place value chart to identify the value of each digit to one decimal place	Identify the value of each digit to one decimal place in a variety of ways e.g. the value of the digit 7 in 53.7 is seven tenths, $\frac{7}{10}$ or 0.7		***Identify the value of each digit to one decimal place***
	Partition numbers in different ways (e.g. 23 = 20 + 3 and 23 = 10 + 13)	Make a three-digit number using concrete materials, e.g. base 10 apparatus, bundles of straws, place value counters	Partition a three-digit number (represented using base 10 apparatus) into hundreds, tens and ones, e.g. 643 is 6 hundreds, (600) 4 tens (40) and 3 ones (3)	Partition a three-digit number (represented using base 10 apparatus) into hundreds, tens and ones in different ways, e.g. 643 is 5 hundreds (500), 14 tens (140) and 3 ones (3)	Partition a three-digit number using base 10 apparatus into two groups in different ways where one group is a multiple of 10 e.g. 165 = 150 + 15	Partition a three-digit number without the use of practical equipment into two groups in different ways where one group is a multiple of 10	***Partition numbers in different ways (e.g. 146 = 100+40+6 and 146 = 130+16)***

<table>
<tr>
<td>Compare and order numbers from 0 up to 100; use <, > and = signs</td>
<td colspan="3">Compare two numbers up to 1000 when represented using the same concrete materials saying which number is greater or less and use <, > and = correctly. Pay particular attention to numbers that have the same digits, e.g. 634 and 643</td>
<td colspan="3">Compare three or more numbers up to 1000 when represented using the same concrete materials saying which numbers are greater or less and use <, > and = correctly. Pay particular attention to numbers that have the same digits, e.g. 615 < 652 > 625</td>
<td colspan="3">Order numbers up to 1000 when represented using the same concrete materials saying which numbers are greater or less. Pay particular attention to numbers that have the same digits, e.g. 65, 156 and 651</td>
<td colspan="3">Order numbers up to 1000 saying which numbers are greater or less. Pay particular attention to numbers that have the same digits, e.g. 65, 156 and 651</td>
<td>Compare and order numbers up to 1000</td>
</tr>
<tr>
<td>No equivalent objective in Year 2</td>
<td colspan="2">Compare two or more numbers with ones and tenths using concrete materials saying which has more and less and use <, > and = correctly. Pay particular attention to numbers that have the same digits, e.g. 5.6 and 6.5</td>
<td colspan="2">Order numbers with ones and tenths using concrete materials saying which numbers are greater or less. Pay particular attention to numbers that have the same digits, e.g. 6.1, 5.6 and 6.5</td>
<td colspan="2">Compare two or more numbers with tens, ones and tenths using concrete materials saying which has more and less and use <, > and = correctly. Pay particular attention to numbers that have the same digits, e.g. 15.6 and 61.5</td>
<td colspan="2">Order numbers with tens, ones and tenths saying using concrete materials saying which numbers are greater or less. Pay particular attention to numbers that have the same digits, e.g. 56.1, 15.6 and 61.5</td>
<td colspan="2">Compare two or more numbers with hundreds, tens, ones and tenths saying which has more and less and use <, > and = correctly. Pay particular attention to numbers that have the same digits, e.g. 115.6 and 161.5</td>
<td colspan="2">Order numbers with up to three-digits (hundreds, tens, ones) and tenths saying which numbers are greater or less. Pay particular attention to numbers that have the same digits, e.g. 65.1, 215.6 and 261.5</td>
<td>Compare and order numbers with one decimal place</td>
</tr>
<tr>
<td>Find 1 or 10 more or less than a given number</td>
<td colspan="2">Identify the number one more and one less than a given number with up to three-digits, where the tens and hundreds digit stays the same, e.g. one more than 345</td>
<td colspan="2">Identify the number ten more and ten less than a given number with up to three-digits, where the hundreds digit stays the same e.g. ten less than 567</td>
<td colspan="2">Identify the number one hundred more and one hundred less than a given number with up to three-digits, e.g. one hundred more than 342</td>
<td colspan="2">Identify the number one more and one less than a given number with up to three-digits, where the tens digit might change, e.g. one more than 459</td>
<td colspan="2">Identify the number ten more and ten less than a given number with up to three-digits, where the tens and hundreds digit changes, e.g. ten less than 407</td>
<td colspan="2">Identify the number one more and one less than a given number with up to three-digits, where the ones, tens and hundreds digits might change, e.g. one more than 499</td>
<td>Find 1, 10 or 100 more or less than a given number</td>
</tr>
<tr>
<td>Round numbers to at least 100 to the nearest 10</td>
<td colspan="3">Identify the multiples of 10 immediately before and after a given three-digit number</td>
<td colspan="3">Round numbers with up to three-digits to the nearest ten, e.g. 356 rounds to 360</td>
<td colspan="3">Identify the multiples of 100 immediately before and after a given number</td>
<td colspan="3">Round numbers with up to three-digits to the nearest hundred, e.g. 356 rounds to 400</td>
<td>Round numbers to at least 1000 to the nearest 10 or 100</td>
</tr>
</table>

	Understand the connection between the 10 multiplication table and place value	Use concrete materials to model the effect of multiplying a one-digit number by 10 e.g. exchange each unit cube for a ten rod and identify what changes and what stays the same	Describe the effect of multiplying a one-digit number by ten, e.g. 7 x 10 =70. The 7 has moved one place to the left; from the ones column to the tens column. A place holder (zero) is needed in the ones column	Use concrete materials to model the effect of multiplying a two-digit number by 10 e.g. exchange each unit cube for a ten rod, and each ten rod for a hundred flat and identify what changes and what stays the same	Describe the effect of multiplying a two-digit number by ten, e.g. 73 x 10 =730. Both digits have moved one place to the left.	Use concrete materials to model the effect of multiplying a one-digit number by 100 e.g. exchange each unit cube for a hundred flat and identify what changes and what stays the same	Describe the effect of multiplying a one-digit number by one hundred, e.g. 7 x 100 =700 The 7 has moved two places to the left; from the ones column to the hundreds column. Two place holders (zeroes) are needed in the ones and tens columns.	***Find the effect of multiplying a one- or two-digit number by 10 and 100, identify the value of the digits in the answer***
	Describe and extend simple sequences involving counting on or back in different steps	Identify and describe the rule (addition or subtraction) in a number sequence by calculating the difference between two adjacent numbers		Extend number sequences by using the identified rule		Identify and describe the rule (addition or subtraction) in a number sequence by calculating the step size between non-adjacent numbers in the sequence e.g. 4, □, □, 25, □		***Describe and extend number sequences involving counting on or back in different steps***
	No equivalent objective in Year 2	Know that I represents 1, V represents 5 and X represents 10	Know that in Roman numerals, when a symbol of lesser value is placed after one of greater value the amounts are added e.g. VI is 1 more than 5 which is 6	Know that in Roman numerals a single symbol is not used more than 3 times consecutively* *NB – clock faces occasionally show 4 as IIII*	Know how to use the symbols I, V and X to calculate and represent 2, 3, 6, 7, 8, 11 and 12	Know that in Roman numerals, when a symbol of lesser value is placed before one of greater value the lesser amount is subtracted e.g. IX is 1 less than 10 which is 9	Know how to calculate and represent 4 and 9	**Read Roman numerals from I to XII**
	Use place value and number facts to solve problems	**Children need frequent access to arrange of contexts using the content from all of the above. See Using and Applying, Contextual Learning and Assessment section form the Lancashire Mathematics Planning Disc.**						**Solve number problems and concrete problems involving these ideas**

<table>
<tr><td rowspan="6">Number – Addition and Subtraction</td><td>End of Year 2 expectation</td><td colspan="12">Learning and Progression Statements</td><td>End of Year 3 expectation</td></tr>
<tr><td>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting)</td><td colspan="12">Children need frequent opportunities to select appropriate strategies from the range they have learnt.
The most efficient strategy may differ between children as it will be based on their confidence and competence.</td><td>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method)</td></tr>
<tr><td colspan="14">These steps fit the Lancashire Progression Towards Written Calculation Policies and Progression in Mental Calculations Policies</td></tr>
<tr><td rowspan="2">Select a mental strategy appropriate for the numbers involved in the calculation</td><td colspan="2" rowspan="2">Recognise and solve calculations that involve known facts e.g. 60 + 120</td><td colspan="2" rowspan="2">Recognise that the numbers in addition calculations can be reordered to make calculating more efficient e.g. 70 + 50 + 30 becomes 70 + 30 + 50 and use this strategy where appropriate (This should be supported by concrete materials, pictures or jottings)</td><td colspan="2" rowspan="2">Recognise calculations that require counting on or back mentally e.g. 323 - 70 (counting back in tens) and use this strategy where appropriate (This should be supported by concrete materials, pictures or jottings)</td><td colspan="2" rowspan="2">Recognise calculations that require mental partitioning e.g. 37 + 25 and use this strategy where appropriate (This should be supported by concrete materials, pictures or jottings)</td><td colspan="2" rowspan="2">Recognise calculations that require counting on mentally to find the difference e.g. 112 – 89 and use this strategy where appropriate (This should be supported by concrete materials, pictures or jottings)</td><td colspan="2">Recognise calculations that require counting on or back mentally, bridging through a multiple of 10 efficiently e.g. 204 – 6 becomes 204 – 4 – 2 and use this strategy where appropriate (This should be supported by concrete materials, pictures or jottings)</td><td rowspan="2">Select a mental strategy appropriate for the numbers involved in the calculation</td></tr>
<tr><td colspan="2">Recognise calculations that require a mental compensation method e.g. 127 + 49 becomes 127 + 50 – 1 and use this strategy where appropriate (This should be supported by concrete materials, pictures or jottings)</td></tr>
<tr><td>Understand subtraction as take away and difference (how many more, how many less/fewer)</td><td colspan="3">Use knowledge of number bonds to 10 to recall the complement of any two-digit number to the next multiple of 10 e.g. 73 + <u>7</u> = 80</td><td colspan="3">Derive the complement of any two-digit number to 100, e.g. 73 + <u>27</u> = 100</td><td colspan="3">Recognise that when numbers are close together, even when the context suggests that it is a ‘take away’, a counting on strategy is most efficient and use this correctly, e.g. There are 105 sheep in the field. 93 sheep are taken for shearing, how many are left in the field?
Calculated using a number line:
93 jump of <u>7</u> to 100 then jump of <u>5</u> to 105 gives a difference of <u>12</u></td><td colspan="3">Recognise and use a counting up strategy when the difference between two numbers can be calculated using three or fewer jumps,
e.g. 144 – 86 calculated using a number line:
86 jump of <u>4</u> to 90 then jump of <u>10</u> to 100 then jump of <u>44</u> to 144 gives a difference of <u>58</u>
or 86 jump of <u>14</u> to 100 then jump of <u>44</u> to 144 gives a difference of <u>58</u></td><td>Understand and use take away and difference for subtraction, deciding on the most efficient method for the numbers involved, irrespective of context</td></tr>
</table>

<table>
<tr><td></td><td>Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100</td><td colspan="3">Recall and use addition and subtraction facts for 100 with multiples of 10,
e.g. 60 + □ = 100</td><td colspan="3">Derive and use addition and subtraction facts for 100 with multiples of 5 using bead strings, a blank 10 by 10 grid etc.</td><td colspan="3">Recognise that, when calculating addition facts to 100, the two 5s total 10 and the tens total 90</td><td colspan="3">Recall and use addition and subtraction facts for 100 with multiples of 5,
e.g. 35 + □ = 100</td><td>Recall/use addition / subtraction facts for 100 (multiples of 5 and 10)</td></tr>
<tr><td></td><td>Recall and use number bonds for multiples of 5 totalling 60 (to support telling time to nearest 5 minutes)</td><td colspan="4">Derive and use addition and subtraction facts for 100 using bead strings, a blank 10 by 10 grid etc.</td><td colspan="4">Recognise that, when calculating addition facts to 100, the ones total 10 and the tens total 90</td><td colspan="4">Use addition and subtraction facts for 100</td><td>Derive and use addition and subtraction facts for 100</td></tr>
<tr><td></td><td>Recall and use number bonds for multiples of 5 totalling 60 (to support telling time to nearest 5 minutes)</td><td colspan="6">Use related facts to derive addition and subtraction facts for multiples of 100 totalling 1000</td><td colspan="6">Use addition and subtraction facts for multiples of 100 totalling 1000</td><td>Derive and use addition and subtraction facts for multiples of 100 totalling 1000</td></tr>
<tr><td></td><td>Add and subtract numbers using concrete objects, pictorial representations, and mentally, including:
- a two-digit number and ones
- a two-digit number and tens
- two two-digit numbers
- adding three one-digit numbers</td><td colspan="2">Add and subtract a three-digit number and ones mentally with no boundaries crossed,
e.g. 256 + 3</td><td colspan="2">Add and subtract a three-digit number and tens mentally with no boundaries crossed,
e.g. 573 + 20</td><td colspan="2">Add and subtract a three-digit number and hundreds mentally,
e.g. 375 + 300</td><td colspan="2">Add and subtract a three-digit number and ones mentally, crossing a tens boundary, e.g. 375 + 7</td><td colspan="2">Add and subtract a three-digit number and ones mentally, crossing a hundreds boundary, e.g. 298 + 7</td><td colspan="2">Add and subtract a three-digit number and tens mentally crossing a hundreds boundary,
e.g. 483 + 30</td><td>Add and subtract numbers mentally, including:
- a three-digit number and ones
- a three-digit number and tens
- a three-digit number and hundreds</td></tr>
</table>

	Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: - a two-digit number and ones - a two-digit number and tens - two two-digit numbers - adding three one-digit numbers	Add two numbers with three digits using formal written methods of columnar addition with no exchange from ones into tens, e.g. 326 + 143	Add two numbers with three digits using formal written methods of columnar addition with exchange from ones into tens, e.g. 468 + 326	Add two numbers with three digits using formal written methods of columnar addition with exchange from ones into tens and tens into hundreds, e.g. 468 + 356	Add more than two numbers with three digits using formal written methods of columnar addition with exchange from ones into tens, including when the ‘carried’ amount has more than one ten e.g. 326 + 147 + 219	Add more than two numbers with up to three digits using formal written methods of columnar addition with exchange from ones into tens and tens into hundreds, e.g. 268 + 34 + 356 using the place value columns to set the calculation out correctly	**Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction**
		Subtract numbers with three digits using formal written methods of columnar subtraction with no exchange from tens into ones, e.g. 376 – 143	Subtract numbers with three digits using formal written methods of columnar subtraction with exchange from tens into ones, e.g. 466 – 228	Subtract numbers with three digits using formal written methods of columnar subtraction with exchange from tens into ones and hundreds into tens, e.g. 426 – 357	Subtract numbers with different numbers of digits up to three digits, using formal written methods of columnar subtraction with exchange from tens into ones and hundreds into tens, e.g. 334 – 68 using the place value columns to set the calculation out correctly	Subtract numbers using formal written methods of columnar subtraction where the greater number has 0 as a place holder in the tens column with exchange from hundreds into tens then tens into ones, e.g. 304 – 168	
	Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems	Use rounding to estimate the answer to a calculation, e.g. 423 + 389 could be estimated as 400 + 400 = 800		Use inverse to check the answer to a calculation, e.g. 423 + 389 = 812 can be checked by carrying out either of the following calculations correctly: 812 – 423 or 812 – 389			**Estimate the answer to a calculation and use inverse operations to check answers**
	Solve problems with addition and subtraction including with missing numbers: - using concrete objects and pictorial representations, including those involving numbers, quantities and measures - applying their increasing knowledge of mental and written methods	Represent and solve a problem using concrete materials		Represent and solve a problem using pictorial representations of the items in the context	Represent and solve a problem using structured pictorial representations such as the bar model		**Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction**

<table>
<tr><td rowspan="8">Number – Multiplication and Division</td><td>End of Year 2 expectation</td><td colspan="60">Learning and Progression Statements</td><td>End of Year 3 expectation</td></tr>
<tr><td>No equivalent objective in Year 2</td><td colspan="60">Children need frequent opportunities to select appropriate strategies from the range they have learnt.
The most efficient strategy may differ between children as it will be based on their confidence and competence.</td><td>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method)</td></tr>
<tr><td>No equivalent objective in Year 2</td><td colspan="60">Use concrete materials or pictorial representations to derive the division facts related to the multiplication facts that they know,
e.g. if 8 x 5 = 40 then 40 ÷ 5 = 8 and 40 ÷ 8 = 5
This will be explained as, ‘If 8 lots of 5 are 40, then 40 divided into groups of 5 will make 8 groups and 40 divided into groups of 8 will make 5 groups.’</td><td>Understand that division is the inverse of multiplication and vice versa</td></tr>
<tr><td>Understand multiplication as repeated addition and arrays</td><td colspan="20">Use arrays to understand the multiplication and division facts for the 3 multiplication table</td><td colspan="20">Use arrays to understand the multiplication and division facts for the 4 multiplication table</td><td colspan="20">Use arrays to understand the multiplication and division facts for the 8 multiplication table</td><td>Understand how multiplication and division statements can be represented using arrays</td></tr>
<tr><td rowspan="2">Understand division as sharing and grouping and that a division calculation can have a remainder</td><td colspan="60">Understand division as sharing, e.g. recognise contexts that relate to sharing a quantity equally between a given number of groups</td><td rowspan="2">Understand division as sharing and grouping and use each appropriately</td></tr>
<tr><td colspan="60">Understand division as grouping, e.g. recognise contexts that relate to finding how many groups of a particular size there are in a given amount.</td></tr>
<tr><td>Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers</td><td colspan="12">Recall and use multiplication and division facts for the 3 multiplication table</td><td colspan="12">Derive the 4 multiplication table from the 2 multiplication table</td><td colspan="12">Recall and use multiplication and division facts for the 4 multiplication table</td><td colspan="12">Derive the 8 multiplication table from the 4 multiplication table</td><td colspan="12">Recall and use multiplication and division facts for the 8 times table</td><td>Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables</td></tr>
<tr><td>Recall and use doubles of all numbers to 10 and corresponding halves
Derive and use doubles of simple two-digit numbers (numbers in which the ones total less than 10)</td><td colspan="15">Use partitioning to derive doubles of all numbers to 50
e.g. double 38 becomes double 30 + double 8 which is 60 + 16 = 76</td><td colspan="15">Use partitioning to derive doubles of all numbers to 100,
e.g. double 67 is 134 becomes double 60 + double 7 which is 120 + 14 = 134</td><td colspan="15">Use partitioning to derive and use halves of multiples of 10 where the tens digit is odd, e.g. half of 30 becomes half of 20 + half of 10 which is 10 + 5 = 15; half of 50 becomes half of 40 + half of 10 which is 20 + 5 = 25</td><td colspan="15">Use partitioning to derive and use halves of all numbers to 100, e.g. half of 74 can be calculated using either:
half of 60 + half of 14 or
half of 70 + half of 4</td><td>Derive and use doubles of all numbers to 100 and corresponding halves</td></tr>
</table>

<table>
<tr><td rowspan="3"></td><td>Derive and use doubles of simple two-digit numbers (numbers in which the ones total less than 10)</td><td colspan="6">Use known facts to derive doubles of all multiples of 100 to 500, e.g. double 200 is 400</td><td colspan="6">Use partitioning or known facts to derive doubles of all multiples of 50 to 500, e.g. double 150 is 300</td><td>Derive and use doubles of all multiples of 50 to 500</td></tr>
<tr><td rowspan="2">Calculate mathematical statements for multiplication using repeated addition) and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs</td><td colspan="3">Use an array to represent a teens number multiplied by a single digit number and partition the array into ten and ones to support calculating the product</td><td colspan="3">Use partitioning to calculate a teens number multiplied by a single digit number (mental jotting or grid method)</td><td colspan="3">Use known facts to multiply a multiple of 10 by a single digit number, e.g. 70 x 4 = 280
7 x 10 x 4 reordered as
7 x 4 x 10</td><td colspan="3">Use partitioning to calculate a two-digit number multiplied by a single digit number using grid method</td><td rowspan="2">Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods</td></tr>
<tr><td colspan="4">Use concrete materials to show division as repeated subtraction for numbers beyond the multiplication facts that they know, e.g. 52 ÷ 4 shown as 52 cubes put into groups of 4</td><td colspan="4">Use concrete materials to show division as repeated subtraction for numbers beyond the multiplication facts that they know using greater multiples of the divisor, e.g. 52 ÷ 4 shown as 52 cubes put a group of 40 (10 groups of 4) and a group of 12 (3 groups of 4) so there are 13 groups of 4 in 52</td><td colspan="4">Use a vertical number line to show division as repeated subtraction for numbers beyond the multiplication facts that they know using greater multiples of the divisor e.g. 52 ÷ 4 shown as 52 subtract 40 (10 groups of 4) leaves 12; then subtract 12 (3 groups of 4) so there are 13 groups of 4 in 52</td></tr>
<tr><td rowspan="2"></td><td>No equivalent objective in Year 2</td><td colspan="12">There are no steps towards this end of year expectation</td><td>Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy</td></tr>
<tr><td>Solve problems involving multiplication and division (including those with remainders), using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts</td><td colspan="12">Children need frequent access to arrange of contexts using the content from all of the above.
See Using and Applying, Contextual Learning and Assessment section form the Lancashire Mathematics Planning Disc.</td><td>Solve problems, including missing number problems, involving multiplication and division (and interpreting remainders), including positive integer scaling problems and correspondence problems in which n objects are connected to m objects</td></tr>
</table>

Number – Fractions

End of Year 2 expectation	Learning and Progression Statements					End of Year 3 expectation
No equivalent objective in Year 2	Show practically that a fraction is one whole number divided by another (e.g. $\frac{3}{4}$ can be interpreted as 3 ÷ 4) e.g. demonstrate that three apples shared (divided) between four children gives $\frac{3}{4}$ of an apple for each child	Show pictorially that a fraction is one whole number divided by another (e.g. $\frac{3}{4}$ can be interpreted as 3 ÷ 4) e.g. demonstrate using imagery (pictures of objects or fractional strips) that 3 whole ones divided between four gives $\frac{3}{4}$				***Show practically or pictorially that a fraction is one whole number divided by another (e.g. $\frac{3}{4}$ can be interpreted as 3 ÷ 4)***
Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity	Use concrete materials to show that you find $\frac{1}{2}$ of an amount by dividing (sharing) the amount equally between two; $\frac{1}{3}$ is found by dividing the amount equally between three, e.g. to find $\frac{1}{3}$ of 15 you divide (share) 15 objects into 3 equal groups	Understand that finding a fraction of an amount can be found by dividing by the denominator, e.g. to find $\frac{1}{4}$ of 12 you divide 12 by 4				***Understand that finding a fraction of an amount relates to division***
No equivalent objective in Year 2	Use concrete materials to show that $\frac{1}{10}$ of an amount can be found by dividing (sharing) the amount equally between ten.	Use concrete materials to model the effect of dividing a one-digit number by 10 e.g. exchange each unit straw for a tenth straw piece and identify what changes and what stays the same	Understand the tenths heading in place value columns represents a given number of fractional tenths, e.g. $\frac{3}{10}$ is equal to 0.3	Describe the effect of dividing a one-digit number by ten, e.g. 7 ÷ 10 = 0.7 The 7 has moved one place to the right; from the ones column to the tenths column. A place holder (zero) is needed in the ones column		**Recognise that tenths arise from dividing objects into 10 equal parts and in dividing one-digit numbers or quantities by 10**
Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity	Where a fraction of an amount cannot be found by using known division facts, use concrete materials to find unit fractions (with denominators of ten or less) of a set of objects, e.g. $\frac{1}{7}$ of 63	Use concrete materials to find non-unit fractions (with denominators of ten or less) of a set of objects, e.g. $\frac{3}{5}$ of 65	Where a fraction of an amount cannot be found by using known division facts, use pictorial representations, e.g. bar model, to find unit fractions of a set of objects, e.g. $\frac{1}{3}$ of 51	Use pictorial representations, e.g. bar model, to find non-unit fractions of a set of objects within multiplication table knowledge, e.g. $\frac{3}{8}$ of 32	Use pictorial representations, e.g. bar model, to find non-unit fractions of a set of objects beyond multiplication table knowledge (using a multiplication grid), e.g. $\frac{3}{7}$ of 56	**Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators**
Write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$	Use concrete materials such as multilink to create equivalent fractions, e.g. one tower of four cubes shows $\frac{1}{4}$ red, two of these towers show $\frac{2}{8}$ red, three of these towers show $\frac{3}{12}$ red etc. but each show one row red out of four rows altogether which is $\frac{1}{4}$	Use pictorial representations such as fraction walls to recognise where fractions are equivalent				**Recognise and show, using diagrams, equivalent fractions with small denominators**
No equivalent objective in Year 2	Use pictorial representations, such as fraction strips, to add and subtract fractions with the same denominator within one whole, e.g. $\frac{5}{7}+\frac{1}{7}=\frac{6}{7}$	Add and subtract fractions with the same denominator within one whole by adding or subtracting the numerators, e.g. $\frac{5}{7}+\frac{1}{7}=\frac{6}{7}$				**Add and subtract fractions with the same denominator within one whole [for example, $\frac{5}{7}+\frac{1}{7}=\frac{6}{7}$]**

	No equivalent objective in Year 2	Use pictorial representations, such as fraction strips, to compare and order fractions with the same denominators	Compare and order fractions with the same denominator by placing them on a number line	Use pictorial representations, such as fraction strips, to compare and order unit fractions	When comparing fractions, understand that when the numerators are the same, the greater the denominator, the smaller the fraction; when the denominators are the same, the greater the numerator, the greater the fraction	Compare and order unit fractions such as $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{2}$, $\frac{1}{6}$ and $\frac{1}{2}$ by positioning them on a number line demarcated into twelve divisions	**Compare and order unit fractions, and fractions with the same denominators (including on a number line)**
	Count on and back in steps of $\frac{1}{2}$ and $\frac{1}{4}$	Count on in steps of $\frac{1}{3}$ in the form $\frac{1}{3}, \frac{2}{3}, \frac{3}{3}, \frac{4}{3}, \frac{5}{3}$	Count back in steps of $\frac{1}{3}$ in the form $\frac{5}{3}, \frac{4}{3}, \frac{3}{3}, \frac{2}{3}, \frac{1}{3}$	Count on in steps of $\frac{1}{3}$ in the form $\frac{1}{3}, \frac{2}{3}, 1, 1\frac{1}{3}, 1\frac{2}{3}, 2, 2\frac{1}{3}, 2\frac{2}{3}, 3$	Count back in steps of $\frac{1}{3}$ in the form $2\frac{2}{3}, 2\frac{1}{3}, 2, 1\frac{2}{3}, 1\frac{1}{3}, 1, \frac{2}{3}, \frac{1}{3}$		***Count on and back in steps of $\frac{1}{2}$, $\frac{1}{4}$ and $\frac{1}{3}$***
	No equivalent objective in Year 2	**Children need frequent access to arrange of contexts using the content from all of the above.** **See Using and Applying, Contextual Learning and Assessment section form the Lancashire Mathematics Planning Disc**					**Solve problems that involve all of the above**

Geometry – Properties of Shape	End of Year 2 expectation	Learning and Progression Statements						End of Year 3 expectation
	Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line. Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces.	Accurately draw 2-D shapes on dotty paper (squared and isometric)			Draw 2-D shapes with specific properties on dotty paper, e.g. draw a four-sided shape with exactly two right angles			**Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them**
		Use construction materials such as Clixi or Polydron to make 3-D shapes		Make the skeletons of 3-D shapes using straws and Playdoh		Recognise and describe 3-D shapes in different orientations, e.g. Which of these shapes has five faces?		
	Distinguish between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise)	Recognise angles as a description of a turn and identify objects in the classroom that turn, e.g. doors, handles and the hands on a clock face			Recognise where sides meet at a vertex in a shape that an angle is created			**Recognise angles as a property of shape or a description of a turn**
	Distinguish between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise)	Recognise a quarter-turn (as one right angle) from different starting points	Recognise a drawn right angle when presented in any orientation	Recognise a half-turn (as two right angles) from different starting points and that the start and end points will be facing in opposite directions	Recognise a three-quarter-turn (as three right angles) from different starting points	Recognise a full turn (as four right angles) from different starting points and that the start and end points will be the same	Identify whether an angle is less than a right angle Identify whether an angle is greater than a right angle	**Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle**
	No equivalent objective in Year 2	Identify horizontal lines as lines that are parallel to the horizon		Identify vertical lines as lines that are at right angles to the horizon	Identify pairs of perpendicular lines as lines that are at right angles to each other, or will be if they are continued, irrespective of orientation		Identify parallel lines as lines that are always the same distance apart irrespective of length (NB parallel lines can also be curved or concentric circles), irrespective of orientation	**Identify horizontal and vertical lines and pairs of perpendicular and parallel lines**

Geometry – Position and Direction	End of Year 2 expectation	Learning and Progression Statements	End of Year 3 expectation
	No equivalent objective in Year 2	Know that squares in the same vertical column will all have the same letter reference (but a different number reference), e.g. **A**3 and **A**5	***Describe positions on a square grid labelled with letters and numbers***
		Know that squares in the same horizontal row will all have the same number reference (but a different letter reference), e.g. B**2** and D**2**	

Statistics	End of Year 2 expectation	Learning and Progression Statements					End of Year 3 expectation
	Compare and sort *numbers and* common 2-D and 3-D shapes and everyday objects	Use single set Venn diagrams to compare and sort objects, numbers and shapes including items that do not fit the criteria and placing these in the universal set (area outside the circles)		Use Venn diagrams with two non-intersecting sets to compare and sort objects, numbers and shapes including items that do not fit the criteria and placing these in the universal set (area outside the circles)	Use Venn diagrams with two intersecting sets to compare and sort objects, numbers and shapes including items that do not fit the criteria and placing these in the universal set (area outside the circles)		***Use sorting diagrams to compare and sort objects, numbers and common 2-D and 3-D shapes***
		Use one criterion Carroll diagrams to compare and sort objects, numbers and shapes			Use two criteria Carroll diagrams to compare and sort objects, numbers and shapes (understanding that Carroll diagrams are labelled 'is' and 'is not')		
	Interpret and construct simple pictograms, tally charts, block diagrams and simple tables	Interpret and present data using bar charts with a scale in ones	Interpret and present data using bar charts with a scale in twos	Interpret and present data using bar charts with a scale in fives	Interpret and present data using bar charts with a scale in tens	Select the most appropriate scale when representing data in a bar chart or pictogram	**Interpret and present data using bar charts, pictograms and tables**
		Interpret and present data using tables					
	Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity. Ask and answer questions about totalling and comparing categorical data	Use and interpret information in scaled bar charts and pictograms and tables to solve one-step questions such as 'How many more?' and 'How many fewer?'			Use and interpret information in scaled bar charts and pictograms and tables to solve two-step questions such as those involving addition of two or more categories to compare with another one, or those to identify a missing category number when given the other category totals and the overall amount		**Solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables**

Measurement	End of Year 2 expectation	Learning and Progression Statements				End of Year 3 expectation
Measurement	**Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity and volume (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels. Compare and order lengths, mass, volume/capacity and record the results using >, < and =**	Measure lengths (m/cm/mm)	Compare the lengths of different objects	Add values of length (m/cm/mm) (see progression in mental and written addition)	Find the difference between the lengths of objects and say by how much an object is longer or shorter (m/cm/mm) (see progression in mental and written subtraction)	**Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)**
		Measure mass (kg/g)	Compare the mass of different objects	Add values of mass (kg/g) (see progression in mental and written addition)	Find the difference between the masses of objects and say by how much an object is heavier or lighter (kg/g) (see progression in mental and written subtraction)	
		Measure volume/capacity (l/ml)	Compare the volume/capacity of different objects	Add values of volume/capacity (l/ml) (see progression in mental and written addition)	Find the difference between the volumes/capacities of vessels and say how much more or how much less one vessel contains than another (l/ml) (see progression in mental and written subtraction)	
	Estimate and measure temperature to the nearest degree (°C) using thermometers	There are no steps towards this end of year expectation				***Continue to estimate and measure temperature to the nearest degree (°C) using thermometers***
	No equivalent objective in Year 2	Use concrete materials, e.g. straws, to create a 2-D shape; deconstruct the straws into a straight line to show that the perimeter is a measure of length around the boundary				***Understand perimeter is a measure of distance around the boundary of a shape***
	No equivalent objective in Year 2	Use counting to measure the perimeter of a polygon, either using a trundle wheel to measure large polygons drawn in chalk on the playground where the lengths of the sides are in whole metres, or shapes drawn on squared centimetre paper		Measure the perimeter of simple polygons by measuring each side using a ruler and calculating the total		**Measure the perimeter of simple 2-D shapes**
	Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times	Tell and write the time on an analogue clock to the nearest minute for times past the hour, e.g. 12 minutes past 2	Tell and write the time on an analogue clock to the nearest minute for times to the hour, e.g. 22 minutes to 4	Know that when reading and writing the time on a digital clock, the hours and minutes are separated by a colon	Tell the time on a digital clock to the nearest minute and know whether this is before or after midday, e.g. 4:27 am is 27 minutes past 4 in the morning	**Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks**

<table>
<tr><td>Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times</td><td colspan="3">Know common points of reference for time such as the length of break time is 15 minutes, the time for teeth brushing is 2 minutes, the school day lasts for six hours</td><td colspan="3">Use the common points of reference they know to estimate the time of various events</td><td>Estimate/read time with increasing accuracy to the nearest minute</td></tr>
<tr><td rowspan="2">No equivalent objective in Year 2</td><td colspan="6">Use vocabulary such as o’clock, a.m./p.m., morning, afternoon, noon, midnight</td><td rowspan="2">Record/compare time in terms of seconds, minutes, hours; use vocabulary such as o’clock, a.m./p.m., morning, afternoon, noon, midnight</td></tr>
<tr><td colspan="3">Compare two time intervals which are in the same unit, e.g. I finished my sandwich in 42 seconds, my friend took 56 seconds.
Who ate their sandwich quicker?</td><td colspan="3">Record time in terms of seconds, minutes, hours</td></tr>
<tr><td rowspan="3">Know the number of minutes in an hour and the number of hours in a day</td><td colspan="6">Know that there are 60 seconds in a minute</td><td rowspan="3">Know the number of seconds in a minute and the number of days in each month, year and leap year</td></tr>
<tr><td colspan="6">Know the number of days in each month</td></tr>
<tr><td colspan="6">Know that there are 365 days in a year but 366 in a leap year; know that a leap year occurs every 4 years when the year is divisible by 4</td></tr>
<tr><td>Compare and sequence intervals of time</td><td>Solve time problems working within the hour boundary, e.g. It is 10:30am. My favourite programme starts at 10:45am. How many minutes until it starts?</td><td>Solve time problems that involve the start time and duration where the end time is to be calculated, (within the hour) e.g. a cake goes in the oven at 3:20. It needs to bake for 30 minutes. At what time do I need to take it out of the oven?</td><td>Solve time problems that involve the end time and duration where the start time is to be calculated, (within the hour) e.g. it takes me 25 minutes to walk to school. I arrive at school at 8:50, what time did I set off?</td><td>Solve time problems working across the hour boundary, e.g. It is 3:45pm. How many minutes to 4:15pm?</td><td>Solve time problems that involve the start time and duration where the end time is to be calculated, (beyond the hour) e.g. Mike went on a 45 minute bike ride. He set off at 2:40. At what time did he finish?</td><td>Solve time problems that involve the end time and duration where the start time is to be calculated, (beyond the hour) e.g. my music lesson is 45 minutes long. It finished at 3:20, what time did it start</td><td>Compare durations of events [for example to calculate the time taken by particular events or tasks]</td></tr>
<tr><td>Recognise and use symbols for pounds (£) and pence (p)</td><td colspan="2">Recognise that pence is a fraction of a whole pound</td><td colspan="2">Recognise that when writing amounts of money, either £ or p are used but never together</td><td colspan="2">Recognise that when an amount of money is in pounds and pence it can be written with a £ sign and a decimal point separating the whole pounds and the pence</td><td>Continue to recognise and use the symbols for pounds (£) and pence (p) and understand that the decimal point separates pounds/pence</td></tr>
</table>

	Combine amounts to make a particular value Find different combinations of coins that equal the same amounts of money	Recognise that ten 10p coins equal £1		Recognise that each 10p coin is $\frac{1}{10}$ of £1, hence 10p being written as £0.10 which is consistent with the columns in a place value chart	***Recognise that ten 10p coins equal £1 and that each coin is $\frac{1}{10}$ of £1***
	Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change	Solve a one-step problem that involves adding two amounts of money, e.g. a television costs £240 and a games console costs £225. What is the total cost?	Solve a one-step problem that involves subtracting an amount of money, e.g. John buys an apple for 37p. He pays with a £1 coin. How much change does he get?	Solve a two-step problem that involves adding and then subtracting an amount of money, e.g. John buys a comic for £1.50 and puppet for £4.30. He pays with a £10 note. How much change does he get?	**Add and subtract amounts of money to give change, using both £ and p in practical contexts**
	Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change and measures (including time)	**Children need frequent access to arrange of contexts using the content from all of the above. See Using and Applying, Contextual Learning and Assessment section form the Lancashire Mathematics Planning Disc.**			***Solve problems involving money and measures and simple problems involving passage of time***