EYFS 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 support children in developing a secure understanding of early mathematics and will prepare children effectively for Year 1 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 mathematics 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 are the steps in learning for the autumn term of the Reception year.
- Green are the steps in learning for the spring term of the Reception year.
- Yellow are the steps in learning for the summer term and incorporate the end of Reception year expectations.

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.

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

Rote count from 1	Understand and use the term 'after' in a practical context, e.g. with a line of children one behind the other	Understand and use the term 'after' in a time context, e.g. what are we doing after playtime?	Know what number comes before or after a given number
Rote count from 1	Understand and use the term 'before' in a practical context, e.g. with a line of children one behind the other	Understand and use the term 'before' in a time context, e.g. what did we do before lunch time?	

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 from Development Matters, the Early Learning Goals for Mathematics and necessary prior knowledge and skills for the Year 1 National Curriculum.

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

Learning and Progression Steps (LAPS) may be used in a number of ways. When planning, it may be appropriate to use LAPS statements to inform the next steps for individuals or groups. 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 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 – EYFS

Number – counting

Rote counting
- *Rote count from 1*
- *Rote count on from a given number between 1 and 20*
- *Rote count back from 20 to 0*
- *Rote count back from a given number between 0 and 20*
- *Know what number comes before or after a given number*
- *Say a number between two given numbers*

Counting objects
- *Understand that counting is to find out how many*
- *Use one to one correspondence when counting*
- *Understand the last number said is the number in the set*
- *Count up to 20 objects, pictures, sounds and actions*
- *Understand and use conservation of number*
- *Use the word 'zero' to represent 'none'*
- *Compare two sets of different objects saying which set is more, fewer, same, equal*
- *Order three or more sets of objects*
- *State without counting (subitise) quantities within 5*
- *Make a sensible guess of quantities within 10*

Count reliably with numbers from 1 to 20.

Number – calculating

- *Understand the concept of addition by practically combining sets of objects to find how many and use the terminology part – part – whole*
- *Understand the concept of subtraction by practically removing one amount from within another to find how many are left and use the terminology part – part – whole*
- *Relate subtraction to addition in practical situations using the terminology part – part – whole*
- *Identify one more and one less than a given number*
- *Identify two more and two less than a given number*
- *Add two single-digit numbers totalling up to 10, using practical equipment*
- *Add two single-digit numbers totalling greater than 10, using practical equipment*
- *Subtract a single-digit number from a number up to 10, using practical equipment.*
- *Subtract a single-digit number from a number greater than 10, using practical equipment*

Say which number is one more or one less than a given number. Using quantities and objects, they add and subtract two single-digit numbers and count on or back to find the answer. They solve problems involving doubling, halving and sharing.

Number – fractions

- *Understand that sharing is splitting an amount into equal parts*
- *Understand that halving is sharing into two equal parts*
- *Understand that doubling is adding the same number to itself*

They solve problems, including doubling, halving and sharing.

Number – number sense

- *Partition a set of objects in different ways using the terminology part - part - whole*
- *Understand that 'teen' numbers are a group of 10 plus another number*
- *Understand 20 is the same as two groups of 10*
- *Recognise repeating patterns in the counting sequence i.e. 6, 7, 8, 9 and 16, 17, 18, 19*

Number – number recognition

- *Recognise and identify numerals 0 to 20*
- *Select the numeral that represents a set of objects*
- *Order numerals 0 to 20*

Count reliably with numbers from 1 to 20, place them in order.

Number – graphics

- *Represent amounts in their own ways, explaining what they mean*
- *Represent and explain their thinking in their own ways*
- *Write numerals 0 to 20*

Shape

- *Use everyday language to talk about shapes in the environment*
- *Know that shapes can appear in different ways and be different sizes*
- *Build and make models with 3-D shapes*
- *Create patterns and pictures with 2-D shapes*
- *Name common 2-D shapes (circle, triangle, square, rectangle, oblong)*
- *Name common 3-D shapes (sphere, cube, cuboid, cone)*
- *Talk about shapes using mathematical language (straight, curved, sides, flat, solid)*
- *Sort shapes according to their own criteria*

Explore characteristics of everyday objects and shapes and use mathematical language to describe them.

Space

- *Understand and use positional language in everyday situations*
- *Understand and use ordinal numbers when describing position*
- *Understand and use the language of movement/direction*
- *Describe and recognise patterns made of objects, numbers and shapes*
- *Create patterns made of objects, numbers and shapes*

Use everyday language to talk about position. They recognise, create and describe patterns.

Statistics

- *Sort objects and say what features they have in common*

Measurement

Distance
- *Understand that measures of distance can have different names including length, width, height*
- *Understand and use language to compare two objects of different length/width, e.g. longer / shorter; wider / narrower*
- *Understand and use language to compare two objects of different height, e.g. taller / shorter*
- *Understand and use language of comparison when ordering three objects of different lengths/widths/heights, e.g. longest / shortest; widest / narrowest; tallest / shortest*
- *Find an object of similar length/width/height*
- *Understand the concept of the conservation of length/width/height*
- *Use uniform non-standard units to measure length/width/height*

Weight
- *Understand the measurement of weight (heavy/light)*
- *Understand and use language to compare two objects of different weight, e.g. heavier/lighter*
- *Understand the concept of conservation of weight*
- *Use uniform non-standard units to measure weight*

Volume/capacity
- *Understand the measurement of volume/capacity (empty/full/nearly)*
- *Understand and use language to compare two of the same container holding different amounts, e.g. more/less*
- *Understand and use the language of comparison when ordering three of the same container holding different amounts, e.g. most/least*
- *Understand the concept of the conservation of volume/capacity*
- *Use uniform non-standard units to measure volume/capacity*

Money
- *Understand that we need to pay for goods*
- *Talk about things they want to spend their money on*
- *Talk about different ways we can pay for things*
- *Recognise that there are different coins*
- *Recognise 1p coin*
- *Use 1p coins to pay for objects*

Time
- *Talk about significant times of the day, e.g. home time, lunch time, snack time, bed time, etc.*
- *Understand and use language – before, after, yesterday, today, tomorrow*
- *Use the language of comparison when talking about time, e.g. longer/ shorter; faster/slower*
- *Sequence two or three familiar events and describe the sequence*
- *Know the names of the days of the week*
- *Say the names of the days of the week in order*

Use everyday language to talk about size, weight, capacity, distance, time and money to compare quantities and objects and to solve problems.

EYFS Learning and Progression Steps for Mathematics

	Learning and Progression Statements	Key Learning	Link to Early Learning Goal
	ELG 11 – Numbers Children count reliably with numbers from one to 20, place them in order and say which number is one more or one less than a given number. Using quantities and objects, they add and subtract two single-digit numbers and count on or back to find the answer. They solve problems, including doubling, halving and sharing.		

Rote counting

				Key Learning	Link to Early Learning Goal

<table>
<tr><td rowspan="16" style="writing-mode:vertical">Number - counting</td></tr>
<tr>
<td>Join in with number rhymes</td>
<td>Know that some of the words in number rhymes are numbers</td>
<td>Join in with rote counting from 1 to 5</td>
<td>Rote count from 1 to 5</td>
<td>Join in with rote counting from 1 to 10</td>
<td>Rote count from 1 to a given number up to 10, stopping at the correct place</td>
<td>Join in with rote counting from 1 to 20</td>
<td>Rote count from 1 to a given number up to 20, stopping at the correct place</td>
<td>Rote count from 1</td>
<td rowspan="16">Count reliably with numbers from 1 to 20</td>
</tr>
<tr>
<td>Rote count from 1 to 5</td>
<td colspan="2">Know that rote counting can start at numbers other than 1</td>
<td colspan="2">Join in with rote counting up to 10 from a number other than 1</td>
<td>Rote count from one number to another within 10, starting and stopping at the correct place</td>
<td>Join in with rote counting up to 20 from a number other than 1</td>
<td>Rote count from one number to another within 20, starting and stopping at the correct place</td>
<td>Rote count on from a given number between 1 and 20</td>
</tr>
<tr>
<td>Rote count from 1 to 5</td>
<td colspan="2">Join in with rote counting back from 5 to 0</td>
<td colspan="2">Rote count from 5 to 0</td>
<td>Join in with rote counting from 10 to 0</td>
<td>Rote count from 10 to 0</td>
<td>Join in with rote counting from 20 to 0</td>
<td>Rote count back from 20 to 0</td>
</tr>
<tr>
<td>Rote count back from 20 to 0</td>
<td colspan="3">Join in with rote counting back from 10 to a number other than 0</td>
<td colspan="2">Rote count back from one number to another within 10, starting and stopping at the correct place</td>
<td colspan="2">Join in with rote counting back from 20 to a number other than 0</td>
<td>Rote count back from one number to another within 20, starting and stopping at the correct place</td>
<td>Rote count back from a given number between 0 and 20</td>
</tr>
<tr>
<td colspan="4">Rote count from 1</td>
<td colspan="2">Understand and use the term 'after' in a practical context, e.g. with a line of children one behind the other</td>
<td colspan="3">Understand and use the term 'after' in a time context, e.g. what are we doing after playtime?</td>
<td rowspan="2">Know what number comes before or after a given number</td>
</tr>
<tr>
<td colspan="4">Rote count from 1</td>
<td colspan="2">Understand and use the term 'before' in a practical context, e.g. with a line of children one behind the other</td>
<td colspan="3">Understand and use the term 'before' in a time context, e.g. what did we do before lunch time?</td>
</tr>
<tr>
<td>Rote count from a given number between 1 and 10</td>
<td>Understand and use the term 'between' in a practical context, e.g. with a line of children one behind the other</td>
<td>Understand and use the term 'between' in a time context, e.g. what do you do between going home and going to bed?</td>
<td>Know what number comes before or after a given number</td>
<td>Say the number between two given numbers within 10 e.g. what number is between 5 and 7?</td>
<td>Say the number between two given numbers within 20 e.g. what number is between 12 and 14?</td>
<td>Say a number between two given numbers within 10 e.g. tell me a number between 4 and 8</td>
<td colspan="2">Say a number between two given numbers</td>
</tr>
</table>

	Counting objects								
	There are no steps towards this expectation. Children need to be provided with situations in which finding a quantity is a meaningful task, e.g. There are only six people allowed at the painting table, how many are there now?							**Understand that counting is to find how many**	
	Rote count from 1 to 5		Know the number names in order and distinguish each one		Understand that each object in the set requires a different number name		Synchronise the counting sequence with touching each object (one number name per object)	**Use one to one correspondence when counting**	
	Use one to one correspondence when counting				Count up to 5 objects emphasising the last number said *(if children understand this concept with numbers up to 5 they will be able to use it with numbers up to 20)*			**Understand the last number said is the number in the set**	
Counting objects	Use one to one correspondence when counting and understand the last number said is the number in the set	Count up to 5 objects (including different sized objects), **moving** each as they are counted	Know that in the counting sequence each consecutive number represents an additional object within the set	Understand that objects can be counted in any order and the amount will be the same	Count up to 10 objects (including different sized objects), **moving** each as they are counted	Count out a given amount up to 10 (identified either verbally or written) from a greater set, e.g. 3 oranges from 7 in the snack bowl	Count up to 20 objects (including different sized objects), **moving** each as they are counted	Count out a given amount (identified either verbally or written) from a greater set, e.g. 4 apples from 20 in the snack bowl	**Count up to 20 objects, pictures, sounds and actions**	Count reliably with numbers from 1 to 20
Counting pictures	Count up to 5 objects, **moving** each as they are counted		Count up to 5 pictures, **marking** each as they are counted		Count up to 10 pictures, **marking** each as they are counted		Count up to 20 pictures, **marking** each as they are counted	Count up to 20 pictures without marking using a strategy such as starting at one side, ensuring that all pictures are included and that none have been counted more than once		
Counting sounds / actions	Count up to 5 objects or pictures, keeping track of each as they are counted		Count up to 5 sounds or actions, keeping track of each as they are counted		Count up to 10 sounds or actions, keeping track of each as they are counted		Count up to 20 sounds or actions, keeping track of each as they are counted			
	Understand the last number said is the number in the set	Understand that objects can be counted in any order and the amount will be the same	Know that objects in a group can be rearranged without affecting the total	Place a given number of counters on a ten frame in different ways		Know that when objects arranged in a line are spread out the total remains the same	Know that when a group of objects is moved to a different location (seen or unseen) the total remains the same	**Understand and use conservation of number**	
	Know that when there are no objects this is represented by the word 'zero'							**Use the word 'zero' to represent 'none'**	
	Recognise familiar arrangements for numbers up to 5 when on a dice or domino		Identify quantities of objects up to 5 when placed in a dice or domino arrangement		Identify quantities of objects from 1 to 3 when arranged randomly		Explore arrangements of quantities within 5 using a ten frame	**State without counting (subitise) quantities within 5**	*There is no reference to this learning in the ELG*
	State without counting (subitise) quantities within 5	Identify, without counting, whether a group has more than or fewer than 5 objects		Know what 10 of different sets of the same object look like	When shown a group within 10 (quick reveal), identify whether it is closer to 5 or 10		When shown two groups within 10 (quick reveal), identify which is the best match for a given number	**Make a sensible guess of quantities within 10**	

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Number – number sense

Compare two groups of the same object by matching objects together	Use the word 'more' to indicate the greater amount / Use the word 'fewer' to indicate the lesser amount	Understand the relationship between 'more' and 'fewer', e.g. 4 is more than 3 so 3 is fewer than 4	Identify when groups of the same object have the same amount after objects have been matched	Use the words 'same' and 'equal' to indicate equivalence	Compare groups by counting the objects	Know that bigger objects do not indicate greater amounts, e.g. 2 footballs is a lesser amount than 4 tennis balls	**Compare two sets of different objects saying which set is more, fewer, same, equal**	**Count reliably with numbers from 1 to 20, place them in order**
Compare two groups of the same object by matching objects together	Compare three groups of the same object by matching objects together	Use the word 'most' to indicate the greatest amount / Use the word 'fewest' to indicate the least amount	Compare three groups by counting the objects	Know that bigger objects do not indicate greater amounts, e.g. 2 footballs is a lesser amount than 4 tennis balls	Understand that ordering can go from most to fewest or from fewest to most	**Order three or more sets of objects**	

Understand and use conservation of number	Use the word 'whole' to describe a set of objects, e.g. in a group of 6 biscuits, the 'whole' is 6	Partition the 'whole' set of objects between two groups, e.g. 6 biscuits with 4 on one plate and 2 on another	Use the word 'part' to describe each partitioned set of objects, e.g. 6 biscuits with 4 on one plate and 2 on another, the parts are 4 and 2	**Partition a set of objects in different ways using the terminology part – part – whole**	*There is no reference to this learning in the ELG*
Count up to 10 objects, **moving** each as they are counted	Count out a group of 10 objects from a greater set	Place 10 objects in a specified container and recognise that it holds 10, e.g. 10 pencils in a pot; 10 biscuits in a box	Recognise that when a ten frame is full this represents 10	Arrange a group of 11 to 19 objects into 1 group of 10 plus another group	Use structured equipment number such as bundles of art straws, Unifix (tower of 10), ten frame with counters to create a group of 10 plus another group	**Understand that 'teen' numbers are a group of 10 plus another number**	*There is no reference to this learning in the ELG*

Arrange a group of 20 objects into 2 groups of 10	Recognise that when two ten frames are full this represents 20	**Understand 20 is the same as two groups of 10**	
Use structured equipment such as bundles of art straws, Unifix (tower of 10), ten frames with counters to represent the full counting sequence from 1 to 20	Understand the numbers 11 to 19 as 10 and 1, 10 and 2, 10 and 3 etc.	**Recognise repeating patterns in the counting sequence i.e. 6, 7, 8, 9 and 16, 17, 18, 19**	*There is no reference to this learning in the ELG*