Year 1 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.

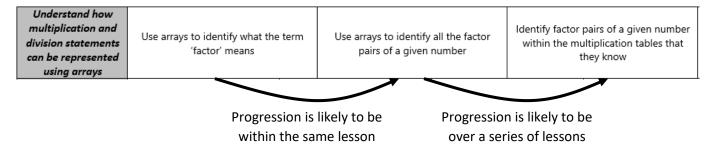
Green are the steps in learning for the spring term.

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,



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

Read and write numbers	Read multiples of 1000 to 10 000 in	Read multiples of 100 to 10 000 in	Read numbers to 10 000 where 0 is	Read numbers to 10 000 where 0 is	Read and write
	numerals and in words	numerals and in words	not used as a place holder	used as a place holder	numbers to at least
up to 1000 in numerals	Write multiples of 1000 to 10 000 in	Write multiples of 100 to 10 000 in	Write numbers to 10 000 where 0 is	Write numbers to 10 000 where 0 is	10 000
and in words	numerals and in words	numerals and in words	not used as a place holder	used as a place holder	

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 1

Number – number and place value	Number – addition and subtraction	Number – multiplication and division
 Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number Count in multiples of twos, fives and tens Read and write numbers to 100 in numerals Read and write numbers from 1 to 20 in numerals and words 	 Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs Represent and use number bonds and related subtraction facts within 20 Add and subtract one-digit and two-digit numbers to 20, including 	 Recall and use doubles of all numbers to 10 and corresponding halves Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher
 Begin to recognise the place value of numbers beyond 20 (tens and ones) Identify and represent numbers using objects and pictorial representations including the number line Use the language of: equal to, more than, less than (fewer), most, least Given a number, identify one more and one less Given a number identify ten more or less Order numbers to 50 Recognise and create repeating patterns with numbers, objects and shapes Identify odd and even numbers linked to counting in twos from 0 and 1 Schwarzshams and practical problems involving all of the above 	 zero (using concrete objects and pictorial representations) Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = □ - 9 	 Measurement Measure and begin to record: lengths and heights, using non-standard and then manageable standard units (m/cm) mass/weight, using non-standard and then manageable standard units (kg/g) capacity and volume using non-standard and then manageable standard units (litres/ml) time (hours/minutes/seconds) within children's range of counting competence Compare, describe and solve practical problems for: lengths and heights (for example, long/short, longer/shorter,
 Solve problems and practical problems involving all of the above Number – fractions 	Geometry – properties of shapes	tall/short, double/half)
 Understand that a fraction can describe part of a whole Understand that a unit fraction represents one equal part of a whole Recognise, find and name a half as one of two equal parts of an object shape or quantity (including measure) Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity (including measure) 	 Recognise and name common 2-D shapes, including rectangles (including squares), circles and triangles Recognise and name common 3-D shapes, including cuboids (including cubes), pyramids and spheres Geometry – position and direction Describe movement, including whole, half, quarter and three-quarter 	 mass/weight (for example, heavy/light, heavier than, lighter than) capacity and volume (for example, full/empty, more than, less than, half, half full, quarter) time (for example, quicker, slower, earlier, later) Recognise and use language relating to dates, including days of the week, weeks, months and years Sequence events in chronological order using language (for example, before and after next first today, vectorday, temperature)
	 turns Recognise and create repeating patterns with objects and shapes Describe position and direction 	 example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times Recognise and know the value of different denominations of coins
	 Statistics Sort objects, numbers and shapes to a given criterion and their own Present and interpret data in block diagrams using practical equipment Ask and answer simple questions by counting the number of objects in each category Ask and answer questions by comparing categorical data 	and notes

These Learning and Progression Steps (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 EYFS expectation			Lea	rning and Prog	ression Stateme	nts			End of Year 1 expectation
	Count reliably with numbers from 1 to 20	Count within 0 to 20 forwards and backward from any number - understanding that 0 represents the value of a empty set and the numb that is before one in the counting sequence	or 0 forwards backwards (ensu an there is increased e eer on the ability to	Count to at least 50 from 1 or 0 forwards and backwards (ensure that there is increased emphasis on the ability to count backwards)		nd backwards hat there is emphasis on ty to count	num backv th empl	nt to 100 from any ober forwards and wards (ensure that ere is increased hasis on the ability count backwards)	Count across 100 forwards and backwards to develop familiarity with the patterning of the number system (there is no need to go beyond 130 as this exemplifies the pattern adequately)	Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number
Number and Place Value	Count reliably with numbers from 1 to 20	Recite and know the sequence of counting in tens from zero paying particular attention to twenty, thirty and fifty whose names do not follow the root number	Recite and know the sequence of counting in fives from zero	sec	and know the quence of iting in twos rom zero	Count ob twos (thes more fa numb	e will be miliar	Count object: in fives	s Count objects in tens	Count in multiples of twos, fives and tens
Number an	Recognise numbers from 1-20	Read num	nbers to 20		fference betwe	to 100 and und en 'teens' numb ns, e.g. 18 and 8	pers and	Read	d numbers to 100	Read and write
	Read numbers from 1-20 in numerals	Write nun	nbers to 20		fference betwe	to 100 and unc en 'teens' numb es of tens				numbers to 100 in numerals
	Recognise numbers	Read numbe	ers from 1 to 20 in numer	als (as abo	ve)		Read	numbers in words fr	om 1 to 20	Read and write
	from 1-20 Read numbers from 1-20 in numerals		ers from 1 to 20 in numer					e numbers in words fr		numbers from 1 to 20 in numerals and words
		NE	3 (Number words are in th <u>phase 5</u> : five, nine, fou							

No equivalent objective in EYFS		lue of ones in a two- umber to 30	digit		fy the value of tens ir er to 30 (e.g. three te	-		fy the value of o two-digit numb		in a two	y the value of tens -digit number (e.g. e tens is thirty)	Begin to recognise the place value of numbers beyond 20 (tens and ones)
No equivalent objective in EYFS	Represent two- digit numbers to 30 using Unifix / bundles of straws by creating bundles of ten and ones	Represent two- digit numbers to 30 using base 10 equipment Use jottings to represent two-digit numbers	Represe digit nu using L bund strav crea bundles and d	umbers Jnifix / les of vs by iting s of ten	Represent two- digit numbers using base 10 equipment Use jottings to represent two-digit numbers	Correctly pla a number fro 1 to 20 on t number lin with all numbers demarcate	ace a om 1 he e	Forrectly place number from L to 20 on the number line with partial demarcation (0, 2, 4, 6, 8, L0, 12, 14, 16, 18, 20)	a nur 1 to nun wit dem	ectly place nber from 20 on the nber line h partial narcation 5, 10, 15, 20)	Correctly place a number from 1 to 20 on the number line with start and end demarcation only (0, 20)	Identify and represent numbers using objects and pictorial representations including the number line
Place the numbers 1 to 20 in order		oups of objects (up to ch has fewer, or if th						pre groups of ob ich has least, or			ifying which group (equal to)	Use the language of: equal to, more than, less than (fewer), most, least
Say the number which is one more or one less than a given number (<i>within</i> 20)		aterials, add one to s lentify one more	the group to	D U		als, remove one from the identify that the			, that the o	he number on a number track and at the one after is one more and the one before is one less		Given a number, identify one more and one less
No equivalent objective in EYFS	and jotting	ete materials s, represent t numbers	to the	group to sing that	materials, add ten identify ten more, the ones digit does change	Using concrete materials, remove ten from the group to identify ten less/fewer, recognising that the ones digit does not change			Identify the number in a 100 square and recognise that the number below is ten more and the number above is ten less		Given a number identify ten more or less	
Place the numbers 1 to 20 in order		erials to represent ers to 30	rep	resented als saying	umbers (up to 50) using concrete which is more and is fewer	(up to 50 concrete ma)) represe aterials an	ore numbers nted using d put them in ost and most	Use a labelled number line to order			Order numbers to 50
Recognise, create and describe patterns	Recognise and c	reate a repeating pa two numbers				a repeating patte numbers	ern using	Recognis	Recognise and create a repeating pattern using more than three numbers			Recognise and create repeating patterns with numbers
No equivalent objective in EYFS	Using concrete mat even amount int		amount them into	concrete materials, arrange any unt into groups of two, sorting into those that can be grouped ly and those that have one left over				en counting in ro			twos from 0 to nbers are odd and re even	Identify odd and even numbers linked to counting in twos from 0 and 1
Solve problems			Children need frequent access to a range of a A Applying, Contextual Learning and Assessn			-	-	-		ning Disc.		Solve problems and practical problems involving all of the above

	End of EYFS				Learning and Prog	ression Statements				End of Year 1
	expectation	These ste	ons fit the Lance	ashire Proar	ression Towards Written (alculation Policies and Pro	oaression in N	Aental Calcul	lations Policies	expectation
otraction	Understand addition as combining two or more <u>parts</u> to make a larger group (the <u>whole</u>) Understand subtraction as taking away a <u>part</u> from the <u>whole</u> to leave the other <u>part</u> Begin to record number stories using number sentences	Use pictures and symb mathematical statemer addition (+), subtract equals (=) signs when r a simple probler <i>J J J + J = J</i> and identify which gro number sentence are th which is the wh	bols to write hts involving ion (-) and representing n, e.g. in a solution oups in the he parts and	Read m involving (-) and e where th the cal and ider number s	athematical statements addition (+), subtraction quals (=) signs, including the = sign is at the start of culation, e.g. $7 = 3 + 4$ ntify which groups in the entence are the parts and <i>v</i> hich is the whole	Interpret mathematical involving addition (+), (-) and equals (=) signs them using pictures of equipment, including v sign is at the start calculation, e.g. 7 and identify which gro number sentence are t	Use concreteUse concreteUse concrete		Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs	
er – Addition and Subtraction	Know number bonds to 10	Know number Use concrete materials, such as ten Use concrete materials, e.g. multilink to explore the relationship		s, e.g. o explore onship dition and number	Use concrete materials, such as ten frames, to represent subtraction facts from ten	Use concrete materials, such as ten frames, to represent addition facts for twenty	materia multilink t the relat between ad subtractio			Represent and use number bonds and related subtraction facts within 20
Number –	Using quantities and objects, they add and subtract	Add two single digit materials or pictures a				numbers using concrete nd a counting on method	Add a o		digit number using an te strategy	Add and subtract one- digit and two-digit numbers to 20, including zero <i>(using</i>
	two single-digit numbers and count on or back to find the answer		number from a tak		g concrete materials or ethod	Subtract a one-digit fro	om a two-digit	t number usir	ng an appropriate strategy	concrete objects and pictorial representations)
	Solve problems	Solve one-step problems involving addition	Solve of problems subtra	involving	Identify whether one- step problems are addition or subtraction and solve accordingly	Use concrete materials to create linked calculations, e.g. 3 + 4 = 7, 4 + 3 = 7, 7 = 3 + 4, 7 = 4 + 3 7 - 3 = 4, 7 - 4 = 3 4 = 7 - 3, 3 = 7 - 4	materials missing probler digit is g 3 + 7 = 3 7 -	concrete s to solve a g number m where a given first, e.g. = 7 (and $3 + \Box \text{),}$ = 3 (and $7 - \Box \text{)}$	Use concrete materials to solve a missing number problem where a digit may not be given first, e.g. $\Box + 3 = 7$ (and $7 = \Box + 3$), $\Box - 4 = 3$ (and $3 = \Box - 4$)	Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \Box - 9$

	End of EYFS expectation			Learning and Progr	ession Statements			End of Year 1 expectation
Multiplication and Division	Understand that doubling is adding the same number to itself and that it is multiplying by 2 Understand that halving is sharing into two equal portions and that this is dividing by 2	Use concrete materials to model doubles as adding the same number to itself	Recall doubles for one to five	Recall doubles for six to ten	Use concrete materials to model halves as splitting a group into two equal parts	Recall halves for even numbers to ten using finger patterns to support if required	Recall halves for even numbers from 12 to 20	Recall and use doubles of all numbers to 10 and corresponding halves
Number – Multipli	this is dividing by 2 Image: Children need frequent access to a range of contexts using the content from all of the above. Solve problems involving doubling, halving and sharing See Using and Applying, Contextual Learning and Assessment sections from the Lancashire Mathematics Planning Disc.							

	End of EYFS expectation			Learning and Prog	ession Statements			End of Year 1 expectation
	No equivalent objective in EYFS	Use concrete materials e.g. chocola fruit to split the whole into different recognise that each part is a fra of the whole	parts and	Split 2-D shapes into recognise that each p whole			ities into different parts and recognise part is a fraction of the whole quantity	Understand that a fraction can describe part of a whole
Number – Fractions	No equivalent objective in EYFS	Use concrete materials e.g. chocola fruit to split the whole into equal p recognise that each part is a unit frac whole e.g. when a chocolate bar is three equal parts each part is one th whole bar	arts and tion of the split into	Split 2-D shapes into eq that each part is a whole			ntities into equal parts and recognise each part is a unit fraction of the whole quantity	Understand that a unit fraction represents one equal part of a whole
	Understand that halving is sharing	Recognise and name a half as one of two equal parts of a shape	two equal objects t	nd name a half as one of parts of an object (using that can be accurately ved e.g. a KitKat)	Recognise and name a hat two equal parts of an ev		Recognise and name a half as one of two equal parts of an odd quantity	Recognise, find and name a half as one of two equal parts of an
Nun	into two equal portions and that this is dividing by 2	Find a half of a shape	objects t	alf of an object (using that can be accurately ved e.g. a KitKat)	Find a half of an even	quantity	object, shape or quantity <i>(including measure)</i>	
	No equivalent	Recognise and name a quarter as or equal parts of a shape	ne of four		quarter as one of four (using objects that can tered e.g. a KitKat)		e and name a quarter as one of four rts of a quantity (which is a multiple of 4)	Recognise, find and name a quarter as one of four equal parts of an
	objective in EYFS	Find a quarter of a shape		Find a quarter of an ob can be accurately qu	ject (using objects that artered e.g. a KitKat)		Find a quarter of a quantity (which is a multiple of 4)	object, shape or quantity <i>(including measure)</i>

	End of EYFS expectation	Learning and Progr	ession Statements	End of Year 1 expectation
Geometry – Properties of Shapes	Begin to use mathematical names for 'flat' 2-D shapes, and mathematical terms to describe shapes Select a particular named 2-D shape	Name common 2-D shapes including when presented in different orientations	Identify common 2-D shapes from within a wider selection that includes a full range of shapes e.g. finding all the squares within a selection of quadrilaterals	Recognise and name common 2-D shapes, including rectangles (including squares), circles and triangles
	Begin to use mathematical names for 'solid' 3-D shapes, and mathematical terms to describe shapes Select a particular named 3-D shape	Name common 3-D shapes including when presented in different orientations	Identify common 3-D shapes from within a wider selection that includes a full range of shapes e.g. finding all the cuboids within a selection of 3-D shapes	Recognise and name common 3-D shapes, including cuboids (including cubes), pyramids and spheres

u	End of EYFS expectation			Learning and Prog	ression Statements			End of Year 1 expectation
and Direction	No equivalent objective in EYFS	Describe turning movements for whole and half turns		urning movements using left and right	Describe turning movements for quarter turns including using left and right		Describe turning movements for three-quarter turns including using left and right	Describe movement, including whole, half, quarter and three- quarter turns
y - Position	No equivalent objective in EYFS	No equivalent Describe position using the terms on top of the terms of terms of the terms of terms		Describe position using the terms on top of, in front of, above, below, between, around, inside and outside			Describe position using the terms before, after and the ordinal numbers e.g. first, second, third	Describe position and direction
heti		Describe direction using forwards and	backwards Describe directi		using up and down Describe		irection using sideways, left and right	
Geon	Recognise, create and describe patterns	Recognise and create a repeating pathons two objects and shapes	-	Ŭ	a repeating pattern using ts and shapes		e and create a repeating pattern using re than three objects and shapes	Recognise and create repeating patterns with objects and shapes

	End of EYFS expectation		Learning and Prog	ression Statements			End of Year 1 expectation	
		Identify criteria that different object common e.g. these cars are all	Sort objects to	a given criterion	Sort	objects using their own criterion		
	No equivalent objective in EYFS	Identify criteria that different shape common e.g. these shapes all have the are triangles	Sort shapes to a	a given criterion	Sort	shapes using their own criterion	Sort objects, numbers and shapes to a given criterion and their own	
tics		Identify criteria that different numbe common e.g. these numbers are al than 8	Sort numbers to	a given criterion	Sort n	umbers using their own criterion		
Statistics	No equivalent objective in EYFS	Present and interpret (see below L concrete	block diagrams using	Interpret (see below		n block diagrams presented using materials	Present and interpret data in block diagrams using concrete materials	
	No equivalent objective in EYFS	Answer questions which ask 'How many?' in a given data category	 estions such as 'How n a given data category categories				Ask and answer simple questions by counting the number of objects in each category	
	No equivalent objective in EYFS	Use language of comparison to com categories e.g. more children have a p a pet dog	or 'How many fewer categories in a bl	ask 'How many more?' ?' when comparing two ock diagram using materials	'How ma	ons such as 'How many more?' and any fewer?' when comparing two ategories in a block diagram	Ask and answer questions by comparing categorical data	

	End of EYFS expectation			Learning and Prog	ression Statements			End of Year 1 expectation	
		Measure and record lengths and heig within children's range c				dard units (m	ghts using rulers and metre rules with I/cm) within children's range of ompetence	Measure and begin to record: - lengths and heights, using non-standard	
	Use everyday language to talk about size,	Measure and record mass/weight usir non-standard units within children's counting competence		scales with manageabl	ss/weight using balance e standard units (kg/g) of counting competence	scales v	nd record mass/weight using weighing vith a simple scale and manageable units (kg/g) within children's range of counting competence	and then manageable standard units (m/cm) - mass/weight, using non-standard and then manageable standard units (kg/g)	
	distance, weight, capacity and time Measure a	Measure and record capacity and volu within children's range c				ard units (litr	olume using measuring vessels with es/ml) within children's range of ompetence	- capacity and volume using non-standard and then manageable standard units (litres/ml) - time (hours/	
ent		Measure and record time using se	econds	Measure and record	I time using minutes	using minutes Measure and record time using hours			
Measurement		Describe a length using the language of short and a height using tall and	-	longer and shorter an	using the language of d a height using taller horter		ctical problems for length and height h of these bags would I use to fit the cricket bat in?	Compare, describe and solve practical problems for: - lengths and heights (for example,	
	Use everyday language to	Describe a mass/weight using the lar heavy and light	nguage of	Compare two masses/we of heavier	eights using the language and lighter		ical problems for mass/weight e.g. use nee scales to find two boxes that will balance this one box	long/short, longer /shorter, tall/short, double/half) - mass/weight (for example, heavy/ light,	
	compare quantities and objects	Describe a capacity or volume using the language of full, empty, half full, nearly full, nearly empty	using the la	wo capacities or volumes inguage of more and less then different containers are used	Describe a capacity or vo the language of more th less than half full, a qu	e than half full,		heavier than, lighter than) - capacity and volume (for example, full/empty, more than, less than, half, half full,	
		Compare the duration of two events language of quicker and slow			using the language of Ind later		tical problems for time e.g. describe a at would take you about 1 minute to complete	quarter) - time (for example, quicker, slower, earlier, later)	
	Use everyday language to talk about time	Know and use the days of the week and how many days there are in one week		l use the months of the ow many months are in one year	Recognise and use the related to dates e.g. Thursday 10 th Septem	today is		Recognise and use language relating to dates, including days of the week, weeks, months and years	

Use everyday language to talk about time	Use language of before, after, next	and first	Use language of morning	g, afternoon and evening	Use langua	ge of today, yesterday and tomorrow	Sequence events in chronological order using language (for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening
Use everyday language to talk about time	Tell the time to the hour	recognising not be exa will be exac	time to the half hour g that the hour hand will ctly on the hour (<i>NB – it</i> ctly half way between the hour numbers)	Draw the hands on a clock to show times to the hour		Draw the hands on a clock to show times to half past the hour recognising that the hour hand is between the hour numbers	Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times
Use everyday language to talk about money	Recognise 1p, 2p, 5p, 10p and 20p coins by colour, shape, size and/or numerals/words	-	2p, 5p, 10p and 20p coin rect number of 1p coins	Recognise and know the value of 50p, £1 and £2 coins by colour, shape, size and/or numerals/words		Recognise and know the value of £5, £10 and £20 notes	Recognise and know the value of different denominations of coins and notes