

				Using and applying mathematics		
		Problem solving	Communicating	Reasoning		
L2	<ul style="list-style-type: none"> ◆ select the mathematics they use in some classroom activities, e.g. with support - <i>find a starting point, identifying key facts / relevant information</i> - <i>use apparatus, diagrams, role play etc to represent and clarify a problem</i> - <i>move between different representations of a problem e.g. a situation described in words, a diagram etc.</i> - <i>adopt a suggested model or systematic approach</i> - <i>make connections and apply their knowledge to similar situations</i> - <i>use mathematical content from levels 1 and 2 to solve problems and investigate</i> 	<ul style="list-style-type: none"> ◆ discuss their work using mathematical language, e.g. with support - <i>describe the strategies and methods they use in their work</i> - <i>engage with others' explanations, compare.... evaluate...</i> ◆ begin to represent their work using symbols and simple diagrams, e.g. with support - <i>use pictures, diagrams and symbols to communicate their thinking, or demonstrate a solution or process</i> - <i>begin to appreciate the need to record and develop their own methods of recording</i> 	<ul style="list-style-type: none"> ◆ explain why an answer is correct, e.g. with support - <i>test a statement such as, 'The number twelve ends with a 2 so 12 sweets can be shared equally by 2 children'</i> ◆ predict what comes next in a simple number, shape or spatial pattern or sequence and give reasons for their opinions 			
L1	<ul style="list-style-type: none"> ◆ use mathematics as an integral part of classroom activities, e.g. with support - <i>engage with practical mathematical activities involving sorting, counting and measuring by direct comparison</i> - <i>begin to understand the relevance of mathematical ideas to everyday situations by using them in role play</i> 	<ul style="list-style-type: none"> ◆ represent their work with objects or pictures ◆ discuss their work, e.g. with support - <i>respond to questions and ideas from peers and adults</i> - <i>refer to the materials they have used and talk about what they have done, patterns they have noticed, etc</i> 	<ul style="list-style-type: none"> ◆ draw simple conclusions from their work e.g. with support - <i>describe the different ways they have sorted objects, what is the same about objects in a set, how sets differ</i> - <i>Identify which set has most, which object is biggest, smallest, tallest etc</i> - <i>Explain numbers and calculations, how many altogether, how many used or hidden, how many left, how many each, etc.</i> ◆ recognise and use a simple pattern or relationship, e.g. with support - <i>copy and continue a simple pattern of objects, shapes or numbers</i> 			
BL	(Below level 1)					
IE	(Insufficient evidence)					

Ma1 overall level

Read the complete level descriptions overleaf to confirm the level. Then consider whether the level is low, secure or high.

Below level 1

Level 1		
low	secure	high

Level 2		
low	secure	high

Ma1 Using and Applying, Level 2

Pupils select the mathematics they use in some classroom activities. They discuss their work using some mathematical language and are beginning to represent it using symbols and simple diagrams. They explain why an answer is correct.

Ma1 Using and Applying, Level 1

Pupils use mathematics as an integral part of classroom activities. They represent their work with objects or pictures and discuss it. They recognise and use a simple pattern or relationship.

For the Ma1 judgement, consider how the pupil uses and applies the mathematics of Ma2, Ma3 and Ma4.

Make your level decision for Ma1 Using and applying mathematics.

- Your assessment focus judgements give an impression of the “best-fit” level for Ma1.
- Read the complete level descriptions for both levels to confirm your impression of the “best-fit” level for Ma1.



Decide whether the level is ‘low’, ‘secure’, or ‘high’. Do this by thinking about what the child demonstrates:

- how much of the level?
- how consistently?
- how independently?
- in what range of contexts....?

Tick the relevant ‘low’, ‘secure’, or ‘high’ box for the level, overleaf.

		Calculating					
		Counting and understanding numbers		Knowing and using number facts			
		Numbers and the number system	Fractions	Operations, relationships between them	Mental methods	Solving numerical problems	Written methods
L2	<ul style="list-style-type: none"> ◆ count sets of objects reliably, e.g. <ul style="list-style-type: none"> -group objects in tens, twos or fives to count them ◆ begin to understand the place value of each digit, use this to order numbers up to 100, e.g. <ul style="list-style-type: none"> -know the relative size of numbers to 100 -use 0 as a place holder -demonstrate knowledge using a range of models/images ◆ recognise sequences of numbers, including odd and even numbers, e.g. <ul style="list-style-type: none"> -continue a sequence that increases or decreases in regular steps -recognise numbers from counting in tens or twos 	<ul style="list-style-type: none"> ◆ begin to use halves and quarters, e.g. <ul style="list-style-type: none"> -use the concept of a fraction of a small quantity in a practical context such as sharing sweets between two and getting $\frac{1}{2}$ each, among four and getting $\frac{1}{4}$ each -work out halves of numbers up to 20 and beginning to recall them ◆ relate the concept of half of a small quantity to the concept of half of a shape, e.g. <ul style="list-style-type: none"> -shade one half or one quarter of a given shape including those divided into equal regions 	<ul style="list-style-type: none"> ◆ use the knowledge that subtraction is the inverse of addition e.g. <ul style="list-style-type: none"> -begin to understand subtraction as 'difference' -given 14, 6 and 8, make related number sentences $6 + 8 = 14$, $14 - 8 = 6$, $8 + 6 = 14$, $14 - 6 = 8$ ◆ understand halving as a way of 'undoing' doubling and vice versa 	<ul style="list-style-type: none"> ◆ use mental recall of addition and subtraction facts to 10 e.g. <ul style="list-style-type: none"> -use addition/subtraction facts to 10 and place value to add or subtract multiples of 10 e.g. know $3 + 7 = 10$ and use place value to derive $30 + 70 = 100$. ◆ use mental calculation strategies to solve number problems including those involving money and measures, e.g. <ul style="list-style-type: none"> -recall doubles to $10+10$ and other significant doubles e.g. double 50p is 100p or £1 -use knowledge of doubles to $10 + 10$ to derive corresponding halves 	<ul style="list-style-type: none"> ◆ choose the appropriate operation when solving addition and subtraction problems <ul style="list-style-type: none"> -use repeated addition to solve multiplication problems -begin to use repeated subtraction or sharing equally to solve division problems ◆ solve number problems involving money and measures e.g. <ul style="list-style-type: none"> -add/subtract two-digit and one-digit numbers, bridging tens where necessary in contexts using units such as pence, pounds, centimetres 	<ul style="list-style-type: none"> ◆ record their work in writing, e.g. <ul style="list-style-type: none"> -record their mental calculations as number sentences 	
L1	<ul style="list-style-type: none"> ◆ count up to 10 objects, e.g. <ul style="list-style-type: none"> -estimate and check a number ◆ read, write numbers to 10 <ul style="list-style-type: none"> -perhaps with some reversal ◆ order numbers to 10 <ul style="list-style-type: none"> -say what number comes next, is one more / less -count back to zero -place 1-10 into ascending order -point to first, second.. etc in a line -begin to count in twos 	<ul style="list-style-type: none"> ◆ begin to use the fraction, one-half, e.g. <ul style="list-style-type: none"> -halve shapes including folding paper shapes, lengths of string -put water in a clear container so that it is about 'half-full' -halve an even number of objects 	<ul style="list-style-type: none"> ◆ understand addition as finding the total of two or more sets of objects ◆ understand subtraction as 'taking away' objects from a set and finding how many are left 	<ul style="list-style-type: none"> ◆ add and subtract numbers of objects to 10 <ul style="list-style-type: none"> -begin to add by counting on from the number of objects in the first set ◆ begin to know some addition facts e.g. <ul style="list-style-type: none"> -doubles of numbers to double 5 	<ul style="list-style-type: none"> ◆ solve addition / subtraction problems involving up to 10 objects, e.g. <ul style="list-style-type: none"> -given a number work out 'how many more to make...' -choose which of given pairs of numbers add to a given total -solve measuring problems such as how many balance with... -solve problems involving 1p or £1 coins 	<ul style="list-style-type: none"> ◆ record their work, e.g. <ul style="list-style-type: none"> -record their work with objects, pictures or diagrams -begin to use the symbols '+' and '=' to record additions 	
BL	(Below level 1)						
IE	(Insufficient evidence)						

Ma2 overall level Read the complete level descriptions overleaf to confirm the level. Then consider whether the level is low, secure or high

Below level 1

Level 1		
low	secure	high

Level 2		
low	secure	high

Ma2 Number, Level 2

Pupils count sets of objects reliably, and use mental recall of addition and subtraction facts to 10. They begin to understand the place value of each digit in a number and use this to order numbers up to 100. They choose the appropriate operation when solving addition and subtraction problems. They use the knowledge that subtraction is the inverse of addition. They use mental calculation strategies to solve number problems involving money and measures. They recognise sequences of numbers, including odd and even numbers.

Ma2 Number, Level 1

Pupils count, order, add and subtract numbers when solving problems involving up to 10 objects. They read and write the numbers involved.

Make your level decision for Ma2 Number.

- Your assessment focus judgements give an impression of the ‘best-fit’ level for Ma2.
- Read the complete level descriptions for both levels to confirm your impression of the “best-fit” level for Ma2.



Decide whether the level is ‘low’, ‘secure’, or ‘high’. Do this by thinking about what the child demonstrates:

- how much of the level?
- how consistently?
- how independently?
- in what range of contexts....?

Tick the relevant ‘low’, ‘secure’, or ‘high’ box for the level, overleaf.

	Understanding shapes		Measuring	
	Properties of shape	Properties of position and movement	Measures	
L2	<ul style="list-style-type: none"> ◆ use mathematical names for common 3-D and 2-D shapes, e.g. <ul style="list-style-type: none"> - identify 2-D and 3-D shapes from pictures of them in different orientations, e.g. square, triangle, hexagon, pentagon, octagon, cube, cylinder, sphere, cuboid, pyramid ◆ describe their properties, including numbers of sides and corners, e.g. <ul style="list-style-type: none"> - make and talk about shapes referring to features and properties using language such as edge, face, corner - sort 2-D and 3-D shapes according to a single criterion e.g. shapes that are pentagons or shapes with a right angle - visualise frequently used 2-D and 3-D shapes - begin to understand the difference between shapes with two dimensions and those with three - recognise the properties that are the same even when a shape is enlarged e.g. when comparing squares, circles, similar triangles, cubes or spheres of different sizes 	<ul style="list-style-type: none"> ◆ describe the position of objects, e.g. <ul style="list-style-type: none"> - use ordinal numbers (first, second, third...) to describe the position of objects in a row or when giving directions - recognise and explain that a shape stays the same even when it is held up in different orientations ◆ distinguish between straight and turning movements <ul style="list-style-type: none"> - distinguish between left and right and between clockwise and anticlockwise and use these when giving directions - instruct a programmable robot, combining straight-line movements and turns, to move along a defined path or reach a target destination ◆ recognise right angles in turns 	<ul style="list-style-type: none"> ◆ understand angle as a measurement of turn <ul style="list-style-type: none"> - make whole turns, half-turns and quarter-turns ◆ begin to use everyday non-standard and standard units to measure length and mass <ul style="list-style-type: none"> - begin to understand that numbers can be used not only to count discrete objects but also to describe continuous measures e.g. length - know which measuring tools to use to find, for example, how much an object weighs, how tall a child is, how long it takes to run around the edge of the playground, how much water it takes to fill the water tray - read scales to the nearest labelled division - begin to make sensible estimates in relation to familiar units ◆ begin to use a wider range of measures <ul style="list-style-type: none"> - make and use a 'right angle checker' - use a time line to order daily events and ordinal numbers (first, second, third...) to describe the order of some regular events 	
L1	<ul style="list-style-type: none"> ◆ use everyday language to describe properties of 2-D and 3-D shapes, e.g. <ul style="list-style-type: none"> - sort shapes and say how they have selected them - use properties such as large, small, triangles, roll, stack - begin to refer to some features of shapes such as side and corner - begin to name the shapes they use in the context of an activity 	<ul style="list-style-type: none"> ◆ use everyday language to describe positions of 2-D and 3-D shapes <ul style="list-style-type: none"> - respond to and use positional language e.g. 'behind', 'under', 'on top of', 'next to', 'in between'... - respond to and use directional language in talk about objects and movement e.g. 'forwards', 'backwards', 'turn' 	<ul style="list-style-type: none"> ◆ measure and order objects using direct comparison <ul style="list-style-type: none"> - compare lengths directly and put them in order - respond to and use the language of comparison; longer, longest, shorter, shortest, more, less, heavier, lighter - check which of two objects is heavier/lighter and begin to put three objects into order - find objects that are longer/shorter than a metre, heavier/lighter than 500 grams, hold more/less than 1 litre ◆ order events <ul style="list-style-type: none"> - order everyday events and describe the sequence - use the vocabulary of time including days of the week - read the time on an analogue clock at the hour and begin to know the half hour 	
BL	(Below level 1)			
IE	(Insufficient evidence)			

Ma3 overall level

Read the complete level descriptions overleaf to confirm the level. Then consider whether the level is low, secure or high

Below level 1

Level 1		
low	secure	high

Level 2		
low	secure	high

Ma3 Shape, space and measures, Level 2

Pupils use mathematical names for common 3-D and 2-D shapes and describe their properties, including numbers of sides and corners. They distinguish between straight and turning movements, understand angle as a measurement of turn, and recognise right angles in turns. They begin to use everyday non-standard and standard units to measure length and mass.

Ma3 Shape, space and measures, Level 1

When working with 2-D and 3-D shapes, pupils use everyday language to describe properties and positions. They measure and order objects using direct comparison and order events.

Make your level decision for Ma3 Shape, space and measures.

- Your assessment focus judgements give an impression of the ‘best-fit’ level for Ma3.
- Read the complete level descriptions for both levels to confirm your impression of the ‘best-fit’ level for Ma3.



Decide whether the level is ‘low’, ‘secure’, or ‘high’. Do this by thinking about what the child demonstrates:

- how much of the level?
- how consistently?
- how independently?
- in what range of contexts....?

Tick the relevant ‘low’, ‘secure’, or ‘high’ box for the level, overleaf.

		Handling data and Using and applying mathematics	
		Processing and representing data	Interpreting data
L2	<ul style="list-style-type: none"> ◆ sort objects and classify them using more than one criterion e.g. <ul style="list-style-type: none"> - sort a given set of shapes using two criteria such as triangle / not triangle and blue / not blue ◆ understand vocabulary relating to handling data e.g. <ul style="list-style-type: none"> - understand vocabulary such as sort, group, set, list, table, most common, most popular ◆ collect and sort data to test a simple hypothesis, e.g. <ul style="list-style-type: none"> - count a show of hands to test the hypothesis 'most children in our class are in bed by 7.30pm' ◆ record results in simple lists, tables, pictograms and block graphs, e.g. <ul style="list-style-type: none"> - present information in lists, tables and simple graphs where one symbol or block represents one unit - enter data into a simple computer database 		<ul style="list-style-type: none"> ◆ communicate their findings, using the simple lists, tables, pictograms and block graphs they have recorded, e.g. <ul style="list-style-type: none"> - respond to questions about the data they have presented, e.g. how many of our names have 5 letters? - pose similar questions about their data for others to answer
L1	<ul style="list-style-type: none"> ◆ sort and classify objects, e.g. <ul style="list-style-type: none"> - sort using one criterion or sort into disjoint sets using two simple criteria such as boy / girl or thick / thin - sort objects again using a different criterion - sort objects into a given large scale Venn or Carroll diagram ◆ represent their work, e.g. <ul style="list-style-type: none"> - use the objects they have sorted as a record - use objects/pictures to create simple block graphs 		<ul style="list-style-type: none"> ◆ demonstrate the criterion they have used, e.g. <ul style="list-style-type: none"> - respond to questions about how they have sorted objects and why each object belongs in a set - talk about which set has most, for example 'most children stayed at school for lunch' - talk about how they have represented their work
BL	(Below level 1)		
IE	(Insufficient evidence)		

Ma4 overall level

Read the complete level descriptions overleaf to confirm the level. Then consider whether the level is low, secure or high

Below level 1

Level 1		
low	secure	high

Level 2		
low	secure	high

Ma2 Handling data, Level 2 (included in programme of study for Ma2 Number in key stage 1)

Pupils sort objects and classify them using more than one criterion. When they have gathered information, pupils record results in simple lists, tables and block graphs, in order to communicate their findings.

Ma4 Handling data, Level 1 (included in programme of study for Ma2 Number in key stage 1)

Pupils sort objects and classify them, demonstrating the criterion they have used.

.Make your level decision for Ma4 Handling data.

- Your assessment focus judgements give an impression of the 'best-fit' level for Ma1.
- Read the complete level descriptions for both levels to confirm your impression of the 'best-fit' level for Ma4.



Decide whether the level is 'low', 'secure', or 'high'. Do this by thinking about what the child demonstrates:

- how much of the level?
- how consistently?
- how independently?
- in what range of contexts....?

Tick the relevant 'low', 'secure', or 'high' box for the level, overleaf.