

## Core learning in mathematics: links to the 1999 Framework for teaching mathematics

A blue box on the right shows that there is no equivalent in the new objectives. A blue box on the left shows that there is no equivalent in the 1999 objectives.

A pink box shows that the equivalent objective was in a different year group in the 1999 Framework.

### Year 1

#### Using and applying mathematics

2006 objectives	1999 Framework and Supplement of examples	
<ul style="list-style-type: none"> <li>Solve problems involving counting, adding, subtracting, doubling or halving in the context of numbers, measures or money, e.g. to 'pay' and 'give change'</li> </ul>	<ul style="list-style-type: none"> <li>Use mental strategies to solve simple problems set in 'real life', money or measurement contexts, using counting, addition, subtraction, halving or doubling.</li> <li>Recognise coins of different values. Find totals and change from up to 20p. Work out how to pay an exact sum using smaller coins</li> </ul>	Year 1 66, 68
<ul style="list-style-type: none"> <li>Describe a problem using numbers, practical materials and diagrams; use these to solve the problem and set the solution back in the original context</li> </ul>	<ul style="list-style-type: none"> <li>Choose and use appropriate number operations and mental strategies to solve problems.</li> <li>Use the +, – and = signs to record mental calculations in a number sentence.</li> </ul>	Year 1 60 24, 28
<ul style="list-style-type: none"> <li>Answer a question by selecting and using suitable equipment, and sorting information, shapes or objects; display results using tables and pictures</li> </ul>	<ul style="list-style-type: none"> <li>Solve a given problem by sorting, classifying and organising information in simple ways. Discuss and explain results.</li> </ul>	Year 1 90, 92
<ul style="list-style-type: none"> <li>Describe simple patterns and relationships involving numbers or shapes; decide whether examples satisfy given conditions</li> </ul>	<ul style="list-style-type: none"> <li>Solve simple mathematical problems or puzzles; recognise and predict from simple patterns and relationships. Suggest extensions by asking 'What if...?' or 'What could I try next?'</li> <li>Investigate a general statement about familiar numbers or shapes by finding examples that satisfy it.</li> </ul>	Year 1 62, 64
<ul style="list-style-type: none"> <li>Describe ways of solving puzzles and problems, explaining choices and decisions orally or using pictures</li> </ul>	<ul style="list-style-type: none"> <li>Explain methods and reasoning orally.</li> </ul>	Year 1 64

#### Counting and understanding number

2006 objectives	1999 Framework and Supplement of examples	
<ul style="list-style-type: none"> <li>Count reliably at least 20 objects, recognising that when rearranged the number of objects stays the same; estimate a number of objects that can be checked by counting</li> </ul>	<ul style="list-style-type: none"> <li>Count reliably at least 20 objects.</li> <li>Give a sensible estimate of a number of objects that can be checked by counting (e.g. up to about 30 objects).</li> </ul>	Year 1 2, 4, 6 16
	<ul style="list-style-type: none"> <li>Understand and use the vocabulary of comparing and ordering numbers, including ordinal numbers to at least 20.</li> </ul>	Year 1 10

## Framework review

<ul style="list-style-type: none"> <li>Compare and order numbers, using the related vocabulary; use the equals (=) sign</li> </ul>	<ul style="list-style-type: none"> <li>Order numbers to at least 20, and position them on a number track.</li> <li>Use the = sign to represent equality.</li> <li>Compare two familiar numbers, say which is more or less, and give a number which lies between them.</li> </ul>	Year 1 10, 14
<ul style="list-style-type: none"> <li>Read and write numerals from 0 to 20, then beyond; use knowledge of place value to position these numbers on a number track and number line</li> </ul>	<ul style="list-style-type: none"> <li>Read and write numerals from 0 to at least 20.</li> <li>Begin to partition two-digit numbers into a multiple of 10 and ones</li> </ul>	Year 1 8
<ul style="list-style-type: none"> <li>Say the number that is one more or less than any given number and ten more or less for multiples of ten</li> </ul>	<ul style="list-style-type: none"> <li>Within the range 0 to 30, say the number that is 1 or 10 more or less than any given number.</li> </ul>	Year 1 12
<ul style="list-style-type: none"> <li>Use the vocabulary of halves and quarters in context</li> </ul>	<ul style="list-style-type: none"> <li>Read the time to the hour or half hour on analogue clocks.</li> <li>Fold shapes in half.</li> <li>Make whole turns and half turns.</li> </ul>	Year 1 78, 82, 88
	<ul style="list-style-type: none"> <li>Begin to recognise and find one half and one quarter of shapes and small numbers of objects.</li> <li>Begin to recognise that two halves or four quarters make one whole and that two quarters and one half are equivalent.</li> </ul>	<b>Year 2</b> <b>21, 23</b>

## Knowing and using number facts

2006 objectives	1999 Framework and Supplement of examples	
<ul style="list-style-type: none"> <li>Derive and recall all pairs of numbers with a total of 10 and addition facts for totals to at least 5; work out the corresponding subtraction facts</li> </ul>	<ul style="list-style-type: none"> <li>Know by heart all pairs of numbers with a total of 10 (e.g. 3 + 7), addition facts for all totals to at least 5, and the corresponding subtraction facts.</li> </ul>	Year 1 30
<ul style="list-style-type: none"> <li>Count on or back in ones, twos, fives and tens and use this knowledge to derive the multiples of 2, 5 and 10 to the tenth multiple</li> </ul>	<ul style="list-style-type: none"> <li>Count on and back in ones from any small number, and in tens from and back to zero; count on in twos from zero, then one; begin to recognise odd or even numbers to about 20 as 'every other number'; count in steps of 5 from zero to 20 or more, then back again.</li> </ul>	Year 1 4, 6
	<ul style="list-style-type: none"> <li>Begin to recognise two-digit multiples of 2, 5 or 10.</li> </ul>	<b>Year 2</b> <b>7</b>
<ul style="list-style-type: none"> <li>Recall the doubles of all numbers to at least 10</li> </ul>	<ul style="list-style-type: none"> <li>Know by heart doubles of all numbers to 10 and the corresponding halves.</li> </ul>	<b>Year 2</b> <b>53</b>

## Calculating

2006 objectives	1999 Framework and Supplement of examples	
<ul style="list-style-type: none"> <li>Relate addition to counting on; recognise that addition can be done in any order; use practical and informal written methods to support the addition of a one-digit number or a multiple of 10 to a one-digit or two-digit number</li> </ul>	<ul style="list-style-type: none"> <li><i>Use mental calculation strategies – several objectives, including:</i> use known number facts and place value to add a pair of numbers.</li> <li>Begin to recognise that addition can be done in any order.</li> </ul>	Year 1 32, 34, 36, 38, 40
<ul style="list-style-type: none"> <li>Understand subtraction as ‘take away’ and find a ‘difference’ by counting up; use practical and informal written methods to support the subtraction of a one-digit number from a one-digit or two-digit number and a multiple of 10 from a two-digit number</li> </ul>	<ul style="list-style-type: none"> <li>Understand subtraction as ‘take away’ or ‘difference’.</li> <li><i>Use mental calculation strategies – several objectives, including:</i> use known number facts and place value to subtract a pair of numbers.</li> </ul>	Year 1 28 32, 34, 36, 38, 40
<ul style="list-style-type: none"> <li>Use the vocabulary related to addition and subtraction and symbols to describe and record addition and subtraction number sentences</li> </ul>	<ul style="list-style-type: none"> <li>Begin to use the +, – and = signs to record mental calculations in a number sentence, and to recognise the use of symbols such as □ to stand for an unknown number.</li> </ul>	Year 1 24, 28
<ul style="list-style-type: none"> <li>Solve practical problems that involve combining groups of 2, 5 or 10, or sharing into equal groups</li> </ul>	<ul style="list-style-type: none"> <li>Understand multiplication as repeated addition, and division as sharing.</li> </ul>	<b>Year 2</b> <b>47, 49</b>

## Understanding shape

2006 objectives	1999 Framework and Supplement of examples	
<ul style="list-style-type: none"> <li>Visualise and name common 2-D shapes and 3-D solids and describe their features; use them to make patterns, pictures and models</li> </ul>	<ul style="list-style-type: none"> <li>Describe features of familiar 3-D and 2-D shapes, including the cube, cuboid, sphere, cylinder, cone..., circle, triangle, square, rectangle, ..., referring to properties such as the shapes of flat faces, or the number of faces or corners, or the number and types of sides.</li> <li>Make and describe models, patterns and pictures</li> <li>Fold shapes in half, then make them into symmetrical patterns.</li> <li>Use shapes to make, describe and continue repeating patterns.</li> </ul>	Year 1 80 82 88
<ul style="list-style-type: none"> <li>Identify objects that turn about a point (e.g. scissors) or about a line (e.g. a door); recognise and make whole, half and quarter turns</li> </ul>	<ul style="list-style-type: none"> <li>Talk about things that turn; make whole turns and half turns.</li> <li>Recognise quarter turns.</li> </ul>	<b>Years 1, 2</b> <b>88, 89</b>
<ul style="list-style-type: none"> <li>Visualise and use everyday language to describe the position of objects and direction and distance when moving them, e.g. when placing or moving objects on a games board</li> </ul>	<ul style="list-style-type: none"> <li>Use everyday language to describe position, direction and movement.</li> </ul>	Year 1 86, 88

## Measuring

2006 objectives	1999 Framework and Supplement of examples	
<ul style="list-style-type: none"> <li>Estimate, measure, weigh and compare objects choosing and using suitable uniform non-standard or standard units and measuring instruments, e.g. a lever balance, metre stick or measuring jug</li> </ul>	<ul style="list-style-type: none"> <li>Compare two lengths, masses or capacities by direct comparison; extend to more than two.</li> <li>Measure using uniform non-standard units (e.g. straws, wooden cubes, plastic weights, yogurt pots), or standard units (e.g. metre sticks, litre jugs).</li> <li>Suggest suitable units and measuring equipment to estimate or measure; record estimates and measurements as 'about 3 beakers full' or 'about as heavy as 20 cubes'.</li> </ul>	Year 1 72 74, 76
<ul style="list-style-type: none"> <li>Use vocabulary related to time; order days of the week and months; read the time to the hour and half hour</li> </ul>	<ul style="list-style-type: none"> <li>Understand and use the vocabulary related to time. Order familiar events in time. Know the days of the week and the seasons of the year.</li> <li>Read the time to the hour or half hour on analogue clocks.</li> </ul>	Year 1 78
	<ul style="list-style-type: none"> <li>Order the months of the year.</li> </ul>	<b>Year 2</b> 79

## Handling data

2006 objectives	1999 Framework and Supplement of examples	
<ul style="list-style-type: none"> <li>Answer a question by recording information in lists and tables; present outcomes using practical resources, pictures, block graphs or pictograms</li> <li>Use diagrams to sort objects into groups according to a given criterion; suggest a different criterion for grouping the same objects</li> </ul>	<ul style="list-style-type: none"> <li>Solve a given problem by sorting, classifying and organising information in simple ways, such as:                             <ul style="list-style-type: none"> <li>using objects or pictures;</li> <li>in a list or simple table.</li> </ul>                             Discuss and explain results.                         </li> </ul>	Year 1 90, 92
	<ul style="list-style-type: none"> <li>Solve a given problem by sorting, classifying and organising information in:                             <ul style="list-style-type: none"> <li>a pictogram;</li> <li>a block graph.</li> </ul> </li> </ul>	<b>Year 2</b> 91, 93