

Core learning in mathematics: links to the National Curriculum 2000

Underlined text in red indicates new objectives that add detail to the relevant National Curriculum Programme of Study.

Year 1

Using and applying mathematics

2006 objectives	National Curriculum 2000 KS1 programme of study	
<ul style="list-style-type: none"> Solve problems involving counting, adding, subtracting, doubling or halving in the context of numbers, measures or money, e.g. to 'pay' and 'give change' 	<ul style="list-style-type: none"> Approach problems involving number, and data presented in a variety of forms, in order to identify what they need to do Develop flexible approaches to problem solving and look for ways to overcome difficulties 	<p>N1a N1b</p>
<ul style="list-style-type: none"> Describe a problem using numbers, practical materials and diagrams; use these to solve the problem and set the solution back in the original context 	<ul style="list-style-type: none"> Make decisions about which operations and problem-solving strategies to use Organise and check their work 	<p>N1c N1d</p>
<ul style="list-style-type: none"> Answer a question by selecting and using suitable equipment, and sorting information, shapes or objects; display results using tables and pictures 	<ul style="list-style-type: none"> Approach problems involving number, and data presented in a variety of forms, in order to identify what they need to do Solve a relevant problem by using simple lists, tables and charts to sort, classify and organise information Select and use appropriate mathematical equipment when solving problems involving measures or measurement Select and use appropriate equipment and materials when solving shape and space problems 	<p>N1a S1b S1c</p>
<ul style="list-style-type: none"> Describe simple patterns and relationships involving numbers or shapes; decide whether examples satisfy given conditions 	<ul style="list-style-type: none"> Create and describe number patterns Recognise simple spatial patterns and relationships and make predictions about them Understand a general statement and investigate whether particular cases match it Present results in an organised way 	<p>N2b S1e N1h N1g</p>
<ul style="list-style-type: none"> Describe ways of solving puzzles and problems, explaining choices and decisions orally or using pictures 	<ul style="list-style-type: none"> Communicate in spoken and pictorial form using informal language and recording Explain their methods and reasoning when solving problems involving number and data 	<p>N1f N1i</p>

Counting and understanding number

2006 objectives	National Curriculum 2000 KS1 programme of study	
<ul style="list-style-type: none"> Count reliably at least 20 objects, recognising that when rearranged the number of objects stays the same; <u>estimate a number of objects that can be checked by counting</u> 	<ul style="list-style-type: none"> Count reliably up to 20 objects and recognise that if the objects are rearranged the number stays the same; be familiar with the numbers 11 to 20; gradually extend counting to 100 	N2a N2b
<ul style="list-style-type: none"> Compare and order numbers, using the related vocabulary; use the equals (=) sign 	<ul style="list-style-type: none"> Understand and use the vocabulary of comparing ordering numbers Use the symbol '=' to represent equality 	N2c N3a
<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Read and write numbers to 20 at first; order a set of one and two-digit numbers and position them on a number line 	N2c
<ul style="list-style-type: none"> <u>Say the number that is one more or less than any given number and ten more or less for multiples of ten</u> 		
<ul style="list-style-type: none"> <u>Use the vocabulary of halves and quarters in context</u> 		

Knowing and using number facts

2006 objectives	National Curriculum 2000 KS1 programme of study	
<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Explore and record patterns related to addition and subtraction, explaining the patterns and using them to make predictions Develop rapid recall of number facts: know addition and subtraction facts to 10 	N2b N3c
<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Explore and record patterns of multiples of 2, 5 and 10 explaining the patterns and using them to make predictions 	N2b
<ul style="list-style-type: none"> Recall the doubles of all numbers to at least 10 		

Calculating

2006 objectives	National Curriculum 2000 KS1 programme of study	
<ul style="list-style-type: none"> 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 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 Use the vocabulary related to addition and subtraction and symbols to describe and record addition and subtraction number sentences 	<ul style="list-style-type: none"> Understand addition and use related vocabulary; recognise that addition can be done in any order Develop a range of mental methods, including adding 10 to any single-digit number, then adding and subtracting a multiple of 10 to or from a two-digit number, making use of the fact that addition can be done in any order Understand subtraction as both 'take away' and 'difference' and use the related vocabulary Use the symbol '=' to represent equality 	N3a N3d N3a

Framework review

<ul style="list-style-type: none"> • Solve practical problems that involve combining groups of 2, 5 or 10, or sharing into equal groups 		
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Understanding shape

2006 objectives	National Curriculum 2000 KS1 programme of study	
<ul style="list-style-type: none"> • Visualise and name common 2-D shapes and 3-D solids and describe their features; use them to make patterns, pictures and models 	<ul style="list-style-type: none"> • Observe, handle, name and describe mathematical features of common 2-D and 3-D shapes, including triangles of various kinds, rectangles including squares, circles, cubes, cuboids • Describe properties of shapes that they can see or visualise using the related vocabulary • Create 2-D shapes and 3-D shapes 	S2b S2a S2c
<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Understand angle as a measure of turn using whole turns, half-turns and quarter-turns 	S4b
<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Observe, visualise and describe positions, directions and movements using common words 	S3a

Measuring

2006 objectives	National Curriculum 2000 KS1 programme of study	
<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Estimate, measure and weigh objects; choose and use simple measuring instruments • Estimate the size of objects and order them by direct comparison using appropriate language; compare and measure objects using uniform non-standard units [e.g. a straw, wooden cubes] 	S4c S4a
<ul style="list-style-type: none"> • Use vocabulary related to time; order days of the week and months; read the time to the hour and half hour 	<ul style="list-style-type: none"> • Put familiar events in chronological order 	S4a

Handling data

2006 objectives	National Curriculum 2000 KS1 programme of study	
<ul style="list-style-type: none"> • Answer a question by recording information in lists and tables; present outcomes using practical resources, pictures, block graphs or pictograms 	<ul style="list-style-type: none"> • Solve a relevant problem by using simple lists, tables and charts to sort, classify and organise information 	N5a
<ul style="list-style-type: none"> • Use diagrams to sort objects into groups according to a given criterion; suggest a different criterion for grouping the same objects 	<ul style="list-style-type: none"> • Use simple lists, tables and charts to sort, classify and organise information 	N5a N5b

