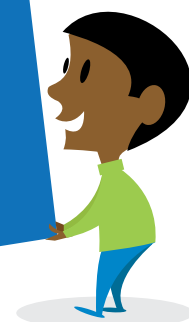


Securing level 2 in mathematics



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Securing level 2 in mathematics

These materials are intended to support you in ensuring that as many children as possible reach level 2 by the end of Key Stage 1. The guidance identifies key areas of learning that children need to secure to attain level 2 in mathematics. While you will integrate the ideas from these materials into your ongoing planning, you could also use them to plan targeted support for particular groups of children. There is a double-page spread for each of the six areas of mathematics:

- Counting, comparing and ordering numbers
- Understanding addition and subtraction and their relationship
- Using mental calculation strategies to solve problems involving addition and subtraction
- Recognising and describing shapes
- Understanding and using standard units and equipment to measure
- Organising and interpreting data to answer questions

Remember

Every day is a mental mathematics day – ensure that children engage in sustained mental work each day (for at least 10–15 minutes) to secure and develop knowledge, skills and understanding in mathematics. *Don't expect confidence in working mentally if practice and repetition have not taken place.*

Hands-on learning is important – provide appropriate practical equipment for children to use and manipulate, to help them to explore how and why things work and to learn to visualise, describe and represent what is in front of them. *Don't just talk about weighing scales, use one; using apparatus is better than imagining how it works.*

Seeing mathematics through models and images supports learning – help children to see how mathematics works and can be represented through physical objects, pictures or diagrams such as place-value cards, counting sticks, number lines and representations of fractional parts. *Don't expect children to visualise and 'see' how something works if they have no models and images to draw from.*

Talking mathematics clarifies and refines thinking – give children the vocabulary and language of mathematics; provide activities and time for them to use this language to discuss mathematics. Teach children the precision of language, for example, using: sum, difference, quarter of and quarter to, and how to express their reasoning using language such as if...then..., because, cannot be, never, sometimes, always. *Don't expect children to explain or provide reasons if they have no opportunity to use, develop and refine the language they need to do this.*

Make mathematics interesting – share your interest in mathematics with the children. Give children mathematics that engages them in: estimating, for example, how much liquid they would drink in a week, month, year...; testing, for example, how many numbers on a hundred square contain the digit 5 and how many of these are multiples of 5; answering intriguing questions such as how many books there are in the school library, how many in the whole school. *Don't expect children to be interested in mathematics if you don't share an interest and all their mathematics is routine and dull.*

Learning from mistakes should build up children's confidence – look out for common mistakes and talk to the children about what they might do differently. Encourage children to work with a partner and talk about the methods they used. *Don't just tell children something is wrong; help them to see what went right and to identify when it went wrong.*

Counting, comparing and ordering numbers

Level 2 standards to be achieved:

Count forwards and backwards in equal steps
Recognise and describe patterns in sequences and use these to extend them
Compare and order whole numbers to 100, using the value of each digit
Partition two-digit numbers in different ways, including into tens and ones
Round any two-digit number to the nearest 10
Find half and one quarter of shapes and sets of objects

For children to attain level 2, they need to:

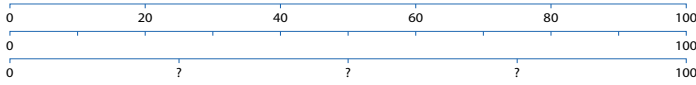
- count in ones and tens forwards or backwards from any one-digit or two-digit number, using their understanding of place value to identify which digits will change and how they change
- estimate the number of objects in a set and group them in twos, fives or tens to count them efficiently
- recognise and continue common sequences such as odd or even numbers
- identify significant digits to compare and order a set of numbers up to 100, for example, 43, 73, 63 and 23, 26, 25
- understand and use the $<$ and $>$ symbols when ordering one-digit and two-digit numbers
- use knowledge of the relative value of numbers to position them onto partially marked number lines
- use the language of fractions (half, quarter, whole, halve, equal amount) to explain how to find one half or one quarter of shapes or amounts

Make sure that:

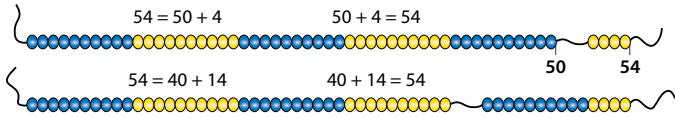
counting forms a regular part of children's daily oral and mental work
you use models and images to demonstrate place value and the relative value of numbers
children use equipment such as beadstrings, partially marked number lines, place-value cards and base-ten apparatus to secure their understanding of place value
you build in frequent opportunities for children to explain their reasoning, for example, describing patterns in a sequence and how they would use these to predict the next term
children solve practical problems involving estimating, counting, ordering and rounding numbers
children position two-digit numbers onto partially marked number lines to support their decisions when ordering numbers or rounding them to the nearest 10
children see, manipulate and generate examples of halves and quarters, using practical equipment to represent parts of a whole

Teaching and learning resources

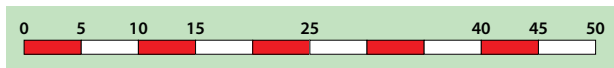
Partially marked number lines



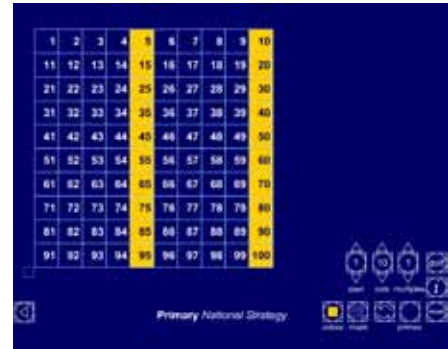
Beadstrings



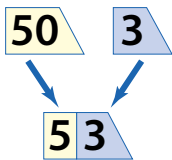
Counting stick spreadsheet or a counting stick



Hundred square or Number grid ITP



Place-value cards

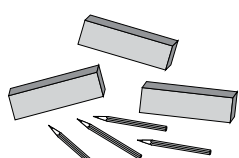
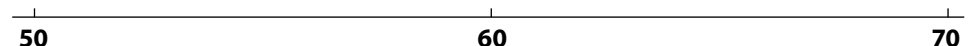


Intervention materials

Overcoming barriers in mathematics – level 1 to 2

- Can I round a two-digit number to the nearest 10?
- Can I show where a two-digit number is on a 0 to 100 number line?
- Can I tell someone how to order two-digit numbers?
- Can I partition one-digit and two-digit numbers in different ways?
- Can I count on and back in equal steps and describe the patterns?

Assessment checklist

'I can' statements	Assessment examples
<i>I can count forwards and backwards in equal steps and describe any patterns in the sequence</i>	Here are some numbers in a sequence: ..., 7, 9, 11, 13... Will the following numbers be in the sequence: 3, 16, 21, 58? Explain how you know. Write the missing numbers in this sequence. 53 48 43 38 <input type="text"/> <input type="text"/> 23 18 Explain how you identified them.
<i>I can explain how to put a set of two-digit numbers in order</i>	If you write these numbers in order, smallest first, which number comes third? 37, 13, 73, 33, 3 Write the same digit in each box to make the number sentence true: <input type="text"/> 1 > 6 <input type="text"/> Now do the same for this number sentence: <input type="text"/> 1 < 6 <input type="text"/>
<i>I can partition numbers to 100</i>	There are 10 pencils in each box and four more pencils. How many pencils are there altogether? Write a number into the box to make the statement true: $10 + 15 = \square + 5$ KS1 2003 ©QCA 
<i>I can round any two-digit number to the nearest 10 and explain how I did it</i>	Paul wants to round 26 to the nearest 10. He is not sure whether the answer is 20 or 30. What would you say to help him decide? Place these numbers on the number line: 53, 66, 58.  Explain how this helps you round each number to the nearest 10.
<i>I can find half or one quarter of a shape or a group of objects</i>	Make lines on a circular paper plate to form quarters. Place 12 counters onto the plate so that there are the same number of counters on each quarter. Explain how you did this.

Understanding addition and subtraction and their relationship

Level 2 standards to be achieved:

Understand and use the language of addition and subtraction
Identify practical situations in which addition and subtraction can be used
Record addition and subtraction problems in different ways, including number sentences
Understand that subtraction can represent situations involving <i>taking away</i> and those involving finding the <i>difference</i>
Know that subtraction is the inverse of addition and vice versa
Give the subtraction fact that corresponds to an addition fact and vice versa

For children to attain level 2, they need to:

- recognise and use the vocabulary and language associated with addition and subtraction, including: add, subtract, plus, minus, count on, count back, less than, more than, fewer than, greater than and difference between
- understand that the = sign represents equality rather than the answer to a calculation and use the term 'equals' rather than 'makes'
- know that subtraction can represent a situation involving taking away and can be worked out by counting back from the larger number or counting on from the smaller
- appreciate that subtraction can represent finding the *difference* between two quantities and be able to find this difference
- use their understanding of the inverse relationship between addition and subtraction to derive and record related addition and subtraction number sentences using the = sign, and to solve problems

Make sure that:

daily oral and mental work involves generating subtraction facts from addition facts and vice versa
children have regular opportunities to explain how they decided whether to use addition or subtraction to solve particular problems
you model the correct use of addition and subtraction vocabulary in a variety of contexts and support children towards using the language to explain their thinking and methods
you model how to represent practical situations, using apparatus, pictorial representation and then using number sentences
children have opportunities to choose when to work out subtraction, using a counting back or a counting on method
children experience situations and problems where they need to use inverse operations, for example, to <i>undo</i> an operation or to find a missing number, and see these operations modelled

Teaching and learning resources

Objects in two colours



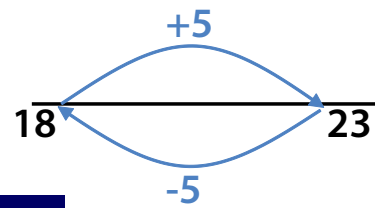
Sliding box cards

$$25 + \boxed{} = 33$$

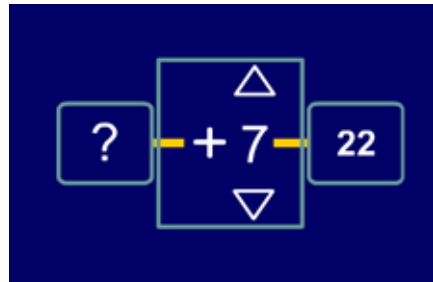
Addition and subtraction number sentences spreadsheet

19	+	4	=	23
<small>Hide Reveal</small>		<small>Hide Reveal</small>		<small>Hide Reveal</small>
<small>Hide Reveal</small>	+	<small>Hide Reveal</small>	=	<small>Hide Reveal</small>
23	+	19	=	23
<small>Hide Reveal</small>		<small>Hide Reveal</small>		<small>Hide Reveal</small>
<small>Hide Reveal</small>	+	<small>Hide Reveal</small>	=	<small>Hide Reveal</small>
23	+	19	=	19
<small>Hide Reveal</small>		<small>Hide Reveal</small>		<small>Hide Reveal</small>
<small>Hide Reveal</small>	+	<small>Hide Reveal</small>	=	<small>Hide Reveal</small>
23	+	19	=	23
<small>Hide Reveal</small>		<small>Hide Reveal</small>		<small>Hide Reveal</small>

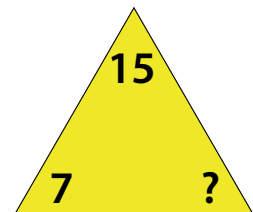
Number lines



Function blocks ITP



Trio cards



Intervention materials

Overcoming barriers in mathematics – level 1 to 2

Can I write addition and subtraction sentences that use the same three numbers and explain how they are linked?

Assessment checklist

'I can' statements	Assessment examples
<i>I can use mathematical words to explain how I solve addition and subtraction problems</i>	Read this problem then explain how you would work it out: Demi has a 20p coin and a 10p coin. How much more money does she need to buy a comic that costs 50p? Write a number sentence to show your answer. Explain how to find the missing number: $\square - 8 = 25$
<i>I can explain how I know whether to use addition or subtraction to solve a problem</i>	Say whether you would use addition or subtraction to solve each of these problems and explain how you know: Jude is five years older than Mark. Mark is seven years old. How old is Jude? There are some yellow and some orange flowers in a vase. There are 14 flowers altogether. Six are yellow. How many are orange?
<i>I can record how I solve addition and subtraction problems</i>	Use equipment, drawing or jottings to solve this problem: Samir is running a 50-metre potato race. He drops his potato after 18 metres. How much further does he have to go?
<i>I can solve subtraction problems by taking away or by counting on</i>	Explain your method for each of these problems: Jason took 40p to the school fete. He has spent 15p. How much money does he have left? Peter is 12 and Casey is 9. How much older is Peter than Casey?
<i>I can say the subtraction sentence that matches an addition sentence and the other way round</i>	Place the numbers 6, 15 and 9 into these number sentences: $\square + \square = \square$; $\square - \square = \square$ Find as many addition and subtraction sentences as you can that use these numbers: 26, 18, 8, 10, 16, 34

Using mental calculation strategies to solve problems involving addition and subtraction

Level 2 standards to be achieved:

Add or subtract a one-digit number to or from a one-digit or two-digit number
Add or subtract a multiple of 10 to or from a two-digit number
Understand how to work out subtraction by both <i>counting back</i> and <i>finding the difference</i>
Choose appropriate operations and resources to solve problems involving addition and subtraction
Select an appropriate method by considering the numbers involved and explain this method, using the language of addition and subtraction
Record how problems were solved, using pictorial representations, number lines and number sentences

For children to attain level 2, they need to:

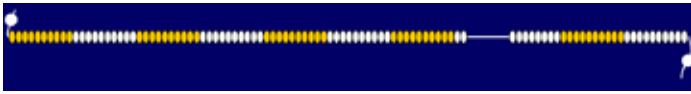
- add several numbers, using the fact that the order can be changed, for example, finding three numbers that total 20 or finding $13 + 6 + 7$ by using $13 + 7 + 6 = 20 + 6$
- begin to use known addition and subtraction facts to calculate efficiently
- bridge through a multiple of ten when adding or subtracting over tens boundaries
- use known facts and place value to add or subtract multiples of 10
- partition two-digit numbers when it makes calculation more efficient
- understand that subtraction can be worked out by counting up from the smaller to the larger number to find the difference and that this can be an efficient method when the numbers are close together
- read, interpret and write number sentences, using appropriate words and symbols

Make sure that:

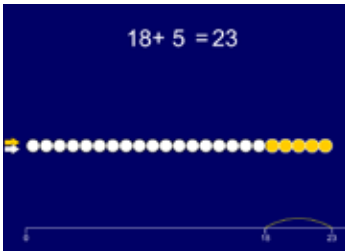
children rehearse and use addition and subtraction facts regularly in daily oral and mental work
children use partially marked number lines and then begin to draw their own number lines to record addition and subtraction methods
you plan frequent opportunities for children to explain their methods and to discuss and compare alternative methods
you model different ways of recording mental methods and encourage children to use pictures and jottings to help them carry out mental calculations
children regularly receive opportunities to use addition and subtraction to solve practical and word problems, including those involving money and measures
you discuss with children how the numbers involved in a calculation might lead to a particular method and why it is appropriate

Teaching and learning resources

Counting on and back ITP or a beadstring



Difference ITP



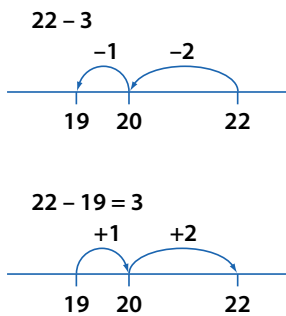
Hundred square

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

36... 46,
56, 66

- 6 + 10 = 16
- 16 + 10 = 26
- 26 + 10 = 36
- 36 + 10 = 46
- 36 + 20 = 56

Number lines



Intervention materials

Overcoming barriers in mathematics – level 1 to 2

Can I say what needs to be added to a two-digit number to make the next multiple of ten?

Can I add and subtract multiples of ten?

Can I add or subtract a one-digit number to or from a two-digit number (bridging through a multiple of ten)?

Can I find the difference between a pair of numbers?

Can I work out and record the information I need to use to solve a puzzle or problem?

Assessment checklist

'I can' statements	Assessment examples
<i>I can add or subtract a one-digit number to or from a two-digit number</i>	Connor drew this number line. What calculation did he work out? Draw your own number line to show how you would work out 37 + 8.
<i>I can add or subtract a multiple of 10 to or from a two-digit number</i>	What number is 30 less than 64? Explain your method. What is the missing number in the number sentence below? How do you know? $57 + \square = 97$
<i>I can subtract by counting back or by finding the difference</i>	Work out these two calculations: 32 - 5 and 32 - 29 Explain how you did each subtraction. Did you choose the same method? If not, why not?
<i>I can choose how to solve a problem and explain my method</i>	Megan and Jack are growing beans. Megan's plant is 25cm tall. Jack's is 38cm tall. How much taller is Jack's plant than Megan's? Explain how you worked this out. Jess has saved 62p. She spends 5p. How much money does she have left?
<i>I can record my working for an addition or subtraction problem</i>	Work out the difference between the number of boys in your class and the number of girls. Record how you solved the problem so that someone else could understand what you did.

Recognising and describing shapes

Level 2 standards to be achieved:

Recognise and name common 2-D and 3-D shapes in different orientations
Describe properties of common 2-D and 3-D shapes, using mathematical terms
Make and talk about shapes, referring to their features or properties
Sort 2-D or 3-D shapes according to one or more criteria
Visualise familiar 2-D and 3-D shapes
Solve simple problems involving 2-D and 3-D shapes

For children to attain level 2, they need to:

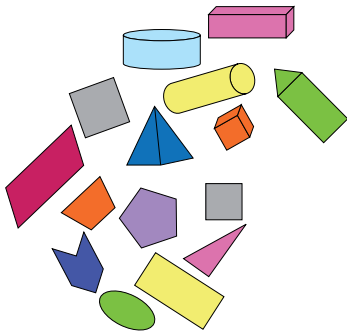
- identify and describe 2-D shapes, including squares, triangles, circles, pentagons and hexagons, using properties such as number of sides and corners
- handle common 3-D shapes and explore their properties, such as the number and shape of faces and the number of corners
- consider what is the same and what is different about two or more shapes
- sort shapes, using one criterion initially, and place them in tables and sorting diagrams
- recognise that a shape does not change when it is in a different orientation
- recognise what changes and what stays the same when shapes are moved or enlarged

Make sure that:

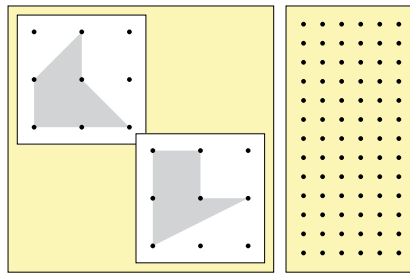
shape and space activities are included in oral and mental work and include opportunities for discussion and reasoning
children have opportunities to create 2-D shapes, including use of squared and isometric paper
children have opportunities to create 3-D models, using construction kits, and to explore and discuss their properties
children experience practical hands-on activities involving shapes rather than simply responding to representations of them
you build on children's experience of creating, drawing and manipulating shapes, helping them to visualise familiar shapes by hiding and revealing the shapes
you model the use of mathematical language, display shape vocabulary and encourage children to use it accurately
children are given opportunities to recognise and talk about shapes in a variety of contexts, including photographs, pictures, puzzles and the indoor and outdoor environment
children discuss the properties of the same shape when it is placed in different orientations or enlarged

Teaching and learning resources

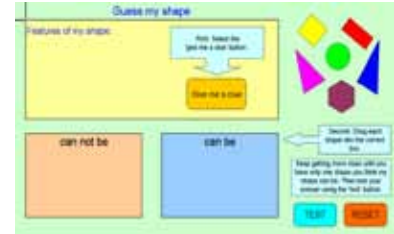
Sets of shapes



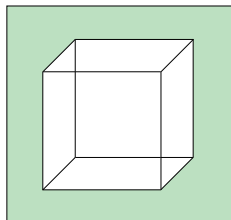
Isometric paper or pinboards



Guess my number or shape spreadsheet



Artstraws or construction kits



Polygon ITP



Intervention materials

Overcoming barriers in mathematics – level 1 to 2

Can I name and describe 2-D and 3-D shapes?

Can I find similarities and differences between shapes and use these to sort into sets I can label?

Assessment checklist

'I can' statements	Assessment examples
<i>I can recognise and name common 2-D and 3-D shapes</i>	Identify the shapes that are pentagons. Explain how you know.
<i>I can describe shapes, using mathematical words</i>	Pick up and look carefully at these three shapes. Do they all have straight edges and flat faces? What else is the same about them? What is different? Look at this picture. Don't let your partner see it. Using the names of shapes, tell your partner how to draw it.
<i>I can sort shapes and explain how I sorted them</i>	Rick sorts these shapes into those with five flat faces and those with four or fewer flat faces. Decide which shapes will go in each set. Now choose your own way to sort this set of shapes. Explain how you have done it.
<i>I can draw shapes of different sizes and decide if they are the same or not.</i>	What is the same and different about these three shapes? What mathematical language can you use to describe them?
<i>I can visualise shapes</i>	Imagine a cube. Four faces are yellow, the rest are blue. How many faces are blue? Imagine a pyramid with a square face. What shapes are the other faces? How many vertices does it have? How many edges?

Understanding and using standard units and equipment to measure

Level 2 standards to be achieved:

Use uniform non-standard and standard units to measure
Choose appropriate equipment to measure length, mass and capacity
Read scales to the nearest labelled division
Use experience of measurement to make sensible estimates and discuss them, using the language of measures
Solve practical problems using measures
Use a time line marked in quarter-hour intervals to order events

For children to attain level 2, they need to:

- measure, using a wide range of measuring instruments
- use measurement to solve practical problems
- understand the limitations of using non-standard units of measure and the benefits of using standard units
- recognise common standard units of measurement for length, mass and capacity
- begin to get a feel for benchmark measurements, such as how heavy 1kg of sugar feels or which containers hold about 1 litre
- read the numbered divisions on a scale and interpret the divisions in between
- know and use the relationship between units of time
- read the time to the nearest quarter hour and interpret a time line

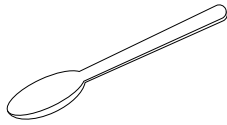
Make sure that:

measurement activities are included in oral and mental work
you provide opportunities to discuss the units used to measure length, mass, capacity and time
children have opportunities to discuss and compare measures, using uniform non-standard units, enabling them to recognise the need for having standard units of measure
children have opportunities to make their own scales, using uniform measures
children understand how they can use their number line skills to help them read scales
you draw on cross-curricular opportunities to offer children practical opportunities to apply their measurement skills in context
children hear and use the language of measures when measuring, estimating, comparing and sorting

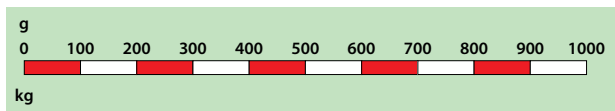
Teaching and learning resources



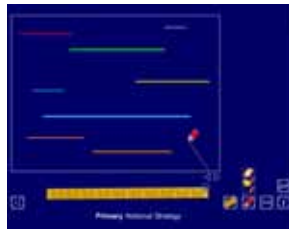
Common objects to use as uniform non-standard units of measure



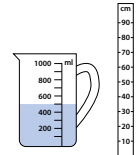
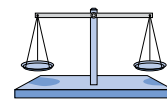
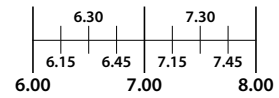
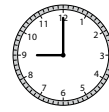
Counting stick or counting stick with further options spreadsheet



Tell Time and Ruler ITPs



Clocks and timelines



A wide selection of measuring instruments

Measuring scales ITP



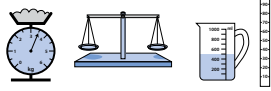
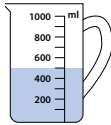

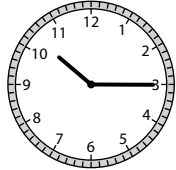
Intervention materials

Overcoming barriers in mathematics – level 1 to 2

Can I read a scale to find out how long or heavy something is?

Can I choose suitable units to measure?

Assessment checklist

'I can' statements	Assessment examples
<i>I can choose a suitable unit of measure</i>	Suggest sensible units you might use to measure: the height of your table; how much water is in a cup; the weight of your reading book; how long it takes you to wash your hands.
<i>I can choose a sensible measuring instrument</i>	 Choose a piece of equipment to help you measure: the weight of your shoe; how long the classroom is; how long this lesson lasts; how much water a cup holds.
<i>I can read a scale to take a measurement</i>	How long is this line? Now draw a line 2cm longer than this one. _____ How much water is in this measuring jug? 
<i>I can make a sensible estimate for a measurement</i>	Find an object in the classroom that you think is about 10cm long. About how heavy do you think your pencil case is?
<i>I can solve problems by measuring</i>	If I program my floor robot to go forward 3 metres, is there enough room? How could you measure to find out?
<i>I can use clocks and time lines to tell the time and order events</i>	What time does this clock show? Draw a clock showing the time half an hour later. Show your school day on this time line. When do you leave home, have breaks, go back home, etc?  

Organising and interpreting data to answer questions

Level 2 standards to be achieved:

Sort objects using more than one criterion
Organise data into lists and tables
Represent data, using pictograms or block graphs where one symbol represents one unit, including through the use of ICT
Begin to read data from pictograms where each symbol represents more than one unit and from bar graphs where the scale is in 2s, 5s or 10s
Answer questions by interpreting data from lists, tables, pictograms, block or bar graphs
Collect, sort and represent data to answer questions and pose and respond to new questions

For children to attain level 2, they need to:

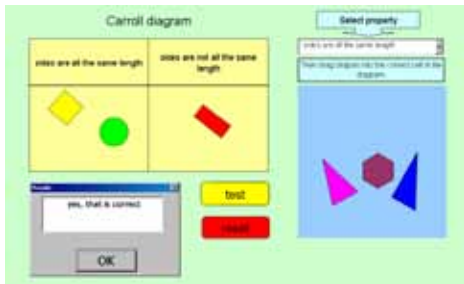
- decide where to place objects on sorting diagrams such as Venn and Carroll diagrams, including those involving two criteria, and explain decisions
- recognise the importance of including titles and labels when organising data into lists and tables and the need for a key when creating pictograms
- interpret and read data presented as pictograms, block and bar graphs
- realise that pictograms, block and bar graphs can be organised so that information runs vertically or horizontally and be able to interpret both orientations
- read titles and labels of lists, tables or graphs carefully in order to identify the information required to answer a question

Make sure that:

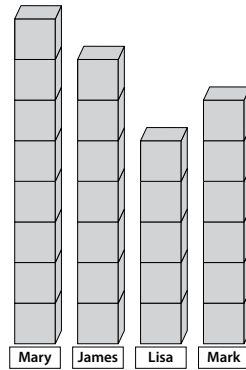
children have experience of sorting objects physically, for example, into hoops, before being asked to sort them onto diagrams such as Venn or Carroll diagrams, and choose their own criteria to classify objects
you show children how Venn and Carroll diagrams involving one criterion can be adapted to incorporate a second criterion
children have practical experience of creating pictograms and block graphs, through using counters or physical blocks, before moving into drawing graphs
you help children to understand the need for non-unit scales on graphs, for example, scales marked in 2s, 5s and 10s
children solve problems involving comparing or combining more than one piece of data, for example, how many more boys than girls are there in the class, how many children altogether?
children are given opportunities to work through the whole data-handling cycle, including suggesting a line of enquiry and discussing what data to collect and how
you draw on opportunities from other curricular areas and real-life opportunities to give children meaningful experiences of handling data

Teaching and learning resources

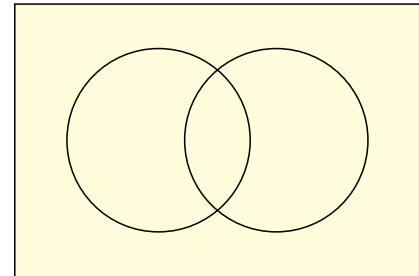
Carroll diagram spreadsheet



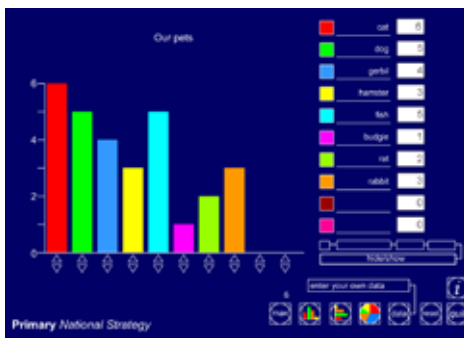
Physical graphs, for example using blocks



Blank sorting diagrams such as Venn diagrams



Data handling ITP



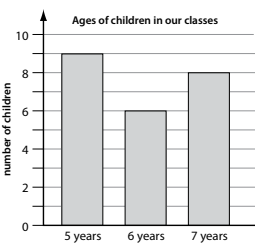
Intervention materials

Overcoming barriers in mathematics – level 1 to 2

Can I use a table, pictogram or block graph to answer questions?

Can I organise a set of objects or information, using properties that they do or do not have in common?

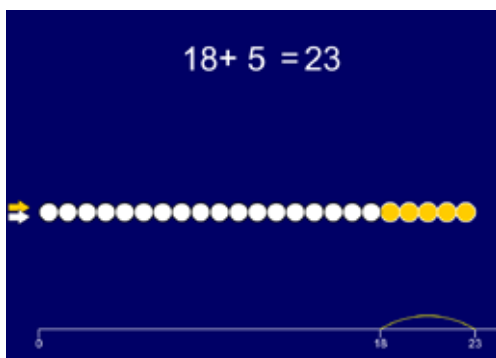
Assessment checklist

'I can' statements	Assessment examples																										
<i>I can sort objects and explain how I sorted them</i>	<p>Choose your own headings to sort a set of 0 to 9 cards. Explain how you sorted them.</p> <p>Look at this Carroll diagram. Where should 15 go?</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>1-digit numbers</th> <th>not 1-digit numbers</th> </tr> </thead> <tbody> <tr> <th>even</th> <td> <table border="1"> <tr><td>2</td><td>4</td></tr> <tr><td>6</td><td>8</td></tr> </table> </td> <td> <table border="1"> <tr><td>106</td><td>10</td></tr> <tr><td>36</td><td>78</td></tr> <tr><td>12</td><td></td></tr> </table> </td> </tr> <tr> <th>not even</th> <td> <table border="1"> <tr><td>3</td><td>5</td><td>7</td></tr> <tr><td>1</td><td>9</td></tr> </table> </td> <td> <table border="1"> <tr><td>11</td></tr> <tr><td>93</td></tr> </table> </td> </tr> </tbody> </table>		1-digit numbers	not 1-digit numbers	even	<table border="1"> <tr><td>2</td><td>4</td></tr> <tr><td>6</td><td>8</td></tr> </table>	2	4	6	8	<table border="1"> <tr><td>106</td><td>10</td></tr> <tr><td>36</td><td>78</td></tr> <tr><td>12</td><td></td></tr> </table>	106	10	36	78	12		not even	<table border="1"> <tr><td>3</td><td>5</td><td>7</td></tr> <tr><td>1</td><td>9</td></tr> </table>	3	5	7	1	9	<table border="1"> <tr><td>11</td></tr> <tr><td>93</td></tr> </table>	11	93
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<i>I can organise information into lists and tables</i>	<p>Write the numbers from 1 to 30 into a table to show which are multiples of 5. What do you notice?</p>																										
<i>I can create a pictogram or block graph to show information</i>	<p>Find out how many girls and how many boys are in your class. Show this information in a table and in a pictogram.</p>																										
<i>I can read information from tables and graphs and use this to answer questions</i>	<div style="display: flex; align-items: center;">  <div style="margin-left: 20px;"> <p>Class 2 made a graph.</p> <p>How many children are five years old?</p> <p>What is the total number of children in the class?</p> <p>KS1 2003 © QCA</p> </div> </div>																										
<i>I can suggest what information to collect and how to do it in order to solve a problem</i>	<p>The school cook wants to find a new meal that children would like to eat. Talk about how you could help her to choose a meal to cook that would be popular.</p>																										

Where can I find the resources?

ICT resources

ITPs (Interactive Teaching Programs)



Difference ITP

These programs can be downloaded from www.standards.dcsf.gov.uk/nationalstrategies. Navigate to the Primary Mathematics Framework area and then to the Mathematics resource library. Refine the results by filtering down to the Interactive Teaching Programs.

Spreadsheets

+	14			34
4		79		
9				43
	48			
5			68	

Reset Click on cells to hide and reveal contents

Addition and subtraction facts spreadsheet

These programs can be downloaded from www.standards.dcsf.gov.uk/nationalstrategies. Navigate to the Primary Mathematics Framework area and then to the Mathematics resource library, then search for spreadsheets.

Intervention materials

Overcoming barriers in mathematics – helping children move from level 1 to level 2

This is a booklet with a set of materials, based on a CD-ROM, designed to help teachers move children from level 1 into level 2. Further information about these materials can be found at www.standards.dcsf.gov.uk/nationalstrategies. Search using reference 00021-2009.

Supporting children with gaps in their mathematical understanding – Wave 3

The Wave 3 mathematics pack aims to help teachers identify and address gaps in learning for children who are working significantly below age-appropriate levels. They can be downloaded from www.standards.dcsf.gov.uk/nationalstrategies. Search using reference 1166-2005.

Acknowledgements

Two questions taken from Key Stage 1 Maths 2003. © Qualifications and Curriculum Authority.

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QCA test questions and mark schemes can be found at www.testbase.co.uk

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subject leaders, teachers, LA consultants
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