**1 of 21** The National Strategies | Primary For more sats papers go to satspapers.org Mathematics: Year 1 Pitch and expectations

### Year 1

#### Using and applying mathematics





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# • Answer a question by selecting and using suitable equipment, and sorting information, shapes or objects; display results using tables and pictures



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# • Describe simple patterns and relationships involving numbers or shapes; decide whether examples satisfy given conditions



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#### Counting and understanding number

• 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



KS1 2003 [oral practice question]

Draw a ring around the person who is 11th in the queue.



Estimate the number of pencils.

Check how many there are by counting them [oral question]

Estimate how many pairs of socks you could make.



Now check by counting the pairs. [oral question]

One marble fits in each space in the box. Tick ( $\checkmark$ ) the box which can hold 18 marbles.



KS1 2007 level 2c

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Compare and order numbers, using the rel	lated vocabulary; use the equals (=) sign			
I'm covering some numbers on your number wheel. For example:	Desi walks on all the numbers from smallest to largest. Draw arrows $(\rightarrow)$ to show the path he takes.			
	90 21 18			
Point to the smallest number you can see.	59 36			
Now point to the largest number you can see.	67			
KS1 2001 level 1	KS1 2004 level 2c			
I'm giving each of you a strip of card with some numbers on [five numbers at random from 10 to 20]. Point to the smallest number you can see. Now point to the largest number you can see. KS1 1998 level 1	Ling is going to write these numbers in order. <b>45 54 32 23 40</b> What number must she write in the white box?			
	smallest largest			
	KS1 2005 level 2c			
Which of these numbers is the largest? Which of these numbers is between 10 and 20? KS1 1997 level 2c This sentence is correct. 10 is less than 12. $\checkmark$ Two of these sentences are correct. Tick ( $\checkmark$ ) them. 19 is more than 36	Write numbers in the boxes to make these correct. One is done for you. 37 is more than 25 37 is between and . 37 has tens KS1 2009 level 2b			
28 is less than 52 50 is more than 15 45 is less than 23 KS1 2007 level 2c	Look at these cards.			
Here are some numbers.	Use two of the cards to make a number more than 50.			
43 89 64 28 51				
Write the numbers in order. One is done for you.	KS1 1998 level 2c			
Smallest largest	Write the number which is between 121 and 119. KS1 2001 level 2 [oral]			

Read and write numerals from 0 to 20, then position these numbers on a number track	a beyond; use knowledge of place value to and number line					
Look at the number wheel.	Look at the number grid.					
	7 8 9 10 11 12					
7 4	13 14 15 16 17					
9 6						
When it's your turn, point to the numbers I say on your wheel.	Write the number 24 in the correct place on the grid. KS1 2002 level 2c					
Child A: 10 3 6 Child B: 7 9 3						
Child C: 2 10 8						
Child D: 4 7 10	0 1 2 3 4 5 6 7 8 9					
your wheel.	20 21 22 23 24 25 26 27 28 29					
KS1 2001 level 1 [oral]	30 31 32 33 34 35 36 37 38 39					
Look at this number line	40 41 42 43 44 45 46 47 48 49					
Write the missing number in the 2 empty boxes.	I want you to find some numbers on the grid. Put a ring around each of these numbers: twenty-five; thirty-seven; forth: three					
KS1 2004 level 2c	KS1 1998 level 2c [oral]					
Draw a ring around these numbers: thirty-six, forty-five, seventy-two.	Write the number thirty-two. [oral question]					
	Write fond hundred and source' as a number					
	Write 'one hundred and seven' as a number.					
30 40 03	1991 1999 IGAGI 7 [OL91]					
KS1 2005 level 2c [oral]		_				
<ul> <li>Say the number that is one more or less th for multiples of ten</li> </ul>	an any given number, and ten more or less					
Look at your numbers.	Write the answers.					
Child A: 21, 19, 15 Child B: 14, 23, 17	5 + 10 = 🗌					
Child C: 18, 13, 22	15 + 10 =					
Child D: 16, 20, 12 Point to your smallest number. What number is it?	25 + 10 = KS1 2001 level 2c					
Tell me the number one more than that number.						
Point to your largest number. What number is it? Tell me the number one less than that number.	Write the missing number in each box.					
KS1 1997 level 1 [oral]	is 10 less than					
I will clap where a number is missing.	ia ————————————————————————————————————					
12 22 32 42 [one clap] 62	KS1 2002 level 2a					
Write the missing number.						
KS1 2004 level 2c [oral]						



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### Knowing and using number facts

<ul> <li>Derive and recall all pairs of numbers with at least 5; work out the corresponding sub</li> </ul>	a total of 10 and addition facts for totals to traction facts
Point to two numbers on a card showing the numbers 1 to 8 arranged in a circle. Ask: What is the sum of (or total of) these two numbers? What is the difference between these two numbers? <b>[oral question]</b> Give each child a grid of numbers to 10 and some counters. Say: Cover a number that is two more than five. Cover a number that is two less than six. Cover two numbers that add up to ten.	Write numbers in the boxes to make these correct. $3 + \square = 8$ $\square + 5 = 9$ KS1 2007 level 2c Look at these cards. 3  1  4  2  6 Use one card each time to make these correct. $7 + \square = 10$
KS1 1999 level 1	10 – _ = 4 KS1 2001 level 2c
Look at these cards. 3 1 4 2 6 Use one card each time to make these correct. 7 + = 10 $10 - = 4$ KS1 2001 level 2c	Only one of these is correct. Draw a tick ( $\checkmark$ ) on it. 5 + 7 = 10 8 + 5 = 18 10 + 10 = 19 9 + 6 = 15 12 + 4 = 14 KS1 2003 level 2c
	Write a number in the box to make this correct. $2 + 8 = 6 + \square$
	KS1 1999 level 2b



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#### Calculating

• 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- or two-digit number

Show me your arrow card which has numbers on it that add up to three. Match the arrow card to the	Tick ( $\checkmark$ ) two numbers which add up to 17.
number 3 on your strip.	
2 1 3	
	$\left(\begin{array}{c} 8 \end{array}\right)  \left(\begin{array}{c} 6 \end{array}\right)$
	9
4	KS1 2000 level 2c
$\geq 6$	Write four different numbers to make these correct.
Now do the same for the other cards.	□ + △ = 17
KS1 1998 level 1 [oral]	♦ + ○ = 17
	KS1 2003 level 2c
Add these three numbers: 5 and 5 and 5.	
	Write the total.
Add these numbers: 5 and 6 and 2.	7 + 3 + 8 + 2 =
KS1 2001 level 2c [oral]	KS1 2004 level 2c
	Write the answer
Work out the sum of 13 and 7.	4+4+2+2=
KS1 2002 level 2c [oral]	KS1 2009 level 2c
	Write the answer.
60 + 6 -	7 + 5 + 7 =
	KS1 2009 level 2c
Write a number in the box to make this correct.	Maite the energy
78 = 🗌 + 8	$54 \pm 10 =$
KS1 2000 level 2c	54 + 19 - KS1 2009 level 2b
Write the missing number.	
L + 8 = 68	Field 2014
KS1 2003 level 2c	SP to L
Write the missing number in the box	
$32 + \Box = 42$	
KS1 2009 level 2c	
	There are 11 boys and 16 girls in Blue Class.
Write the total.	How many children are in Blue Class altogether?
35 + 40 =	There are more girls than boys. How many more?
KS1 1998 level 2c	KS1 2005 level 2b

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• 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- or two-digit number and a multiple of 10 from a two-digit number



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<ul> <li>Use the vocabulary related to addition and subtraction and symbols to describe and record addition and subtraction number sentences</li> </ul>				
Events       Image: Control of the set of the se	Look at the squares of chocolate. There are 16 squares. Tick ( $\checkmark$ ) the sum that matches the picture. 5+2+9=16 5+6+5=16 6+6+4=16 6+2+8=16 8+3+5=16 <b>KS1 2004 level 2c</b> Ben has 4 red cars,			
KS1 2004 level 2c	8 green cars and 3 yellow cars.			
Look at these signs.	Write a sum to work out how many cars he has altogether. KS1 2009 level 2c			
Write a sign in each box to make this correct. 18 7 11 KS1 2007 level 2c	Write the missing number in the box. 32 +			
Write a number in the box to make this correct. $16 - \Box = 10$ KS1 2000 level 2c	Write the correct + or – sign in each box. $58 \ 26 = 84$ $43 \ 17 = 26$ $33 \ 33 = 0$			
virite numbers in the boxes to make this correct. 13 + - + - = 23 KS1 2005 level 2c	KS1 2001 level 2b Write numbers in the boxes to make this correct.			
	18 + □ – □ = 18 KS1 2003 level 2b			



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#### **Understanding shape**

# • Visualise and name common 2-D shapes and 3-D solids and describe their features; use them to make patterns, pictures and models



Child A: cylinder Child B: triangular prism Child C: cone Child D: cube]

Look at the shape I have given you. Tell me one thing about the shape.

[Give each child two different shapes.]

Tell me something that is the same about the two shapes.

Now tell me something that is different about the two shapes.

KS1 2000 level 1 [oral]

How many sides does a pentagon have?

KS1 2005 level 2 [oral]

Draw arrows to show which shapes belong in the set.



Look at the shape names in the box. They say: pentagon, rectangle, triangle, square. Two of these shapes have four corners. Tick the names of these shapes.

KS1 2007 level 2c [oral]

Look at the names of the shapes in the box. They say:

pentagon, square, triangle, hexagon, rectangle.

Tick the names of the shapes that have four sides. KS1 2004 level 2c [oral]

One shape has 2 long sides and 2 short sides. Tick ( $\checkmark$ ) it.



KS1 2003 level 2c

KS1 2005 level 2c

Fred draws round the bottom of a cone.

KS1 2001 level 2c





Tick ( $\checkmark$ ) the shape that Fred draws.



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#### · 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

Look at this grid.

5

4

3

Some squares are grey.

I am going to say something to each of you about your cards. What I say will be wrong. I want you to tell me what I should have said.

Meg's hands are outside her pockets. Jim's number 2 is on the back of his T-shirt. Kim's hands are at the top of her T-shirt. Bob is looking up at his trainers.

#### KS1 1999 level 1

Put your finger on Start. Move your finger up 1 square then across 3 squares.

Q\$	R		E.	ġ.
C.		Start		E3
C.	R			
	E.			





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#### Measuring

# • 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



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## • Use vocabulary related to time; order days of the week and months; read the time to the hour and half hour

Here are some picture cards to look at. The pictures on the cards tell a story. Look at your cards and think what the story might be about.

Put the cards in time order. What do you think happens next?

KS1 2002 level 1

[Give each child in turn a card showing an o'clock time.]

Child A: Pat wakes up at this time. What time is this? Child B: Bola goes to bed at this time. What time is this? Child C: Jack leaves school at this time. What time is this? Child D: Amar starts school at this time. What time is this?

#### KS1 2002 level 1

One clock shows a time between 3 o'clock and 5 o'clock in the same afternoon. Tick ( $\checkmark$ ) it.



Sam's school starts at 9 o'clock.

Sam went to the dentist and got to school half an hour late.

Draw the time Sam got to school on the clock.



KS1 2000 level 2b [oral]

January is the first month in the year. What is the fourth month in the year?

KS1 2009 level 2 [oral]

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#### Handling data

 Answer a question by recording information in lists and tables; present outcomes using practical resources, pictures, block graphs or pictograms



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#### Acknowledgment

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