Teacher guidance

Skills and knowledge needed for this test:

• Number knowledge of 1, 2, 3, 4 and 5



New: Number bonds to 5; + and = signs

A teaching suggestion

Write out the number story of 5.

- 0 + 5 = 5
- 1 + 4 = 52 + 3 = 5
- 2 + 3 = 53 + 2 = 5
- 3 + 2 34 + 1 = 5
- 4 + 1 = 55 + 0 = 5



Challenge the children to work with a partner to write the number story of 4 or 3.



Recite the number stories in order.

Play 'I am thinking of the number story of 5. One of the numbers I am thinking of is 4. What is the other?'. Repeat with other numbers.





Ask the children to write out the number story of 5 and look for number statements that use the same number bonds (e.g. 1 + 4 = 5 and 4 + 1 = 5).

Question number	Question	Answer	Marks	Related test
1	1 + 1 =	2	1	Y1 Autumn Test 1
2	3 + 1 =	4	1	Y1 Autumn Test 1
3	1 + 2 =	3	1	Y1 Autumn Test 1
4	2 + 3 =	5	1	Y1 Autumn Test 1
5	4 + 1 =	5	1	Y1 Autumn Test 1
6	2 + 2 =	4	1	Y1 Autumn Test 1
	Total marks			

Name:		Class:	Date:	
		••••••	••••••	
1	1 + 1 =			



3	1 + 2 =	

Autumn Test 1 (continued)



Total marks

/6

How well did you do?

Number bonds to 5	1	2	3	4	5	6
+	1	2	3	4	5	6

Teacher guidance

Skills and knowledge needed for this test:

- Number knowledge of 1, 2, 3, 4 and 5
- + and = signs
- Number bonds to 5

New: Subtraction and - sign

A teaching suggestion



Set out five objects and show the children a card with the – symbol.



Explain that the symbol means 'take away' and that a mathematical word for this is 'subtract'.



Write the number statement $5 - 2 = \square$ and ask the children what it means. Agree that you start with 5 objects, then take away (or subtract) 2 and work out how many you have left.



Ask a child to take away (subtract) 2 of the objects and then all the children count the remaining objects.



Complete the number statement by writing in the answer.



Question number	Question	Answer	Marks	Related test
1	1 + 4 =	5	1	Y1 Autumn Test 1
2	2 - 1 =	1	1	Y1 Autumn Test 2
3	1 + 3 =	4	1	Y1 Autumn Test 1
4	3 + 2 =	5	1	Y1 Autumn Test 1
5	5 - 3 =	2	1	Y1 Autumn Test 2
6	3 - 2 =	1	1	Y1 Autumn Test 2
	Total marks			





Autumn Test 2 (continued)



How well did you do?

Number bonds to 5	1	2	3	4	5	6
+	1	3	4			
-	2	5	6			

Teacher guidance

Skills and knowledge needed for this test:

- Number knowledge of 1, 2, 3, 4 and 5
- +, and = signs
- Addition and subtraction with number bonds to 5

New: Addition and subtraction of 0

A teaching suggestion

- Step 1
- Set out five objects and show the children a card with the symbol.
- Agree that the symbol means 'take away' or 'subtract'.
- Write the number statement $5 0 = \square$ and ask the children what it means. Agree that you start with 5 objects, take away 0 and then work out how many you have left.
 - Ask a child to take away (or subtract) 0 of the objects and then all the children count the remaining objects. Make sure the child mimes removing no objects from the set.





Complete the number statement by writing in the answer. Be surprised that the answer is the same as the number you started with. Ask the children to explain why the number has not changed.



Repeat with lots of other examples, using addition of 0 as well as subtraction.

Question number	Question	Answer	Marks	Related test
1	3 + 2 =	5	1	Y1 Autumn Test 1
2	4 - 2 =	2	1	Y1 Autumn Test 2
3	2 + 1 =	3	1	Y1 Autumn Test 1
4	3 + 0 =	3	1	Y1 Autumn Test 3
5	3 - 3 =	0	1	Y1 Autumn Test 2
6	4 - 0 =	4	1	Y1 Autumn Test 3
	Total marks		6	





3	2 + 1 =	

Autumn Test 3 (continued)



How well did you do?

Number bonds to 5	1	2	3	4	5	6
+	1	3	4			
_	2	5	6			
±0	4	6				

Teacher guidance

Skills and knowledge needed for this test:

- Number knowledge of 0 to 7
- +, and = signs

- Addition and subtraction with number bonds to 5
- Addition and subtraction of 0

New: Number bonds for 6 and 7

A teaching suggestion

Write out the number story of 6.

- 0 + 6 = 6
- 1 + 5 = 6
- 2 + 4 = 6
- 3 + 3 = 6
- 4 + 2 = 6
- 5 + 1 = 6
- 6 + 0 = 6



Recite the number story.

Challenge the children to find how many number bonds there are in the number story of 6. (There are four different number bonds so there are only four to learn.) Use this to introduce the commutative law (e.g. 2 + 4 = 6 and 4 + 2 = 6).



Step 4	U: th	
	1	

Use the number story to build fact families that use addition and subtraction (e.g. 1 + 5 = 6, 6 - 5 = 1, 6 - 1 = 5).



Play 'I am thinking of the number story of 6. One of the numbers I am thinking about is 4. What is the other?'. Repeat with other numbers. This should reinforce the idea that there are only four number bonds to learn.

Step 6

Show the children number statements from the number story with one of the numbers missing. Challenge the children to remember the number that is missing.



Repeat for the number bonds for 7.

Question number	Question	Answer	Marks	Related test
1	2 + 1 =	3	1	Y1 Autumn Test 1
2	3 + 2 =	5	1	Y1 Autumn Test 1
3	= 0 + 5	5	1	Y1 Autumn Test 3
4	4 - 1 =	3	1	Y1 Autumn Test 2
5	7 – 1 =	6	1	Y1 Autumn Test 4
6	= 2 + 4	6	1	Y1 Autumn Test 4
	Total marks		6	

Name:		Class:	Date:
1	2 + 1 =		



3	= 0 + 5	

Autumn Test 4 (continued)



Total marks

/6

How well did you do?

Number bonds to 5	1	2	3	4
Number bonds for 6 and 7	5	6		
±0	3			
+	1	2	3	6
-	4	5		

YEAR 1 ARITHMETIC PRACTICE TESTS

Autumn Test 5

Teacher guidance

Skills and knowledge needed for this test:

- Number knowledge of 0 to 9
- +, and = signs

- Addition and subtraction with number bonds to 7
- Addition and subtraction of 0

New: Number bonds for 8 and 9

A teaching suggestion

Write out the number story of 8. 0 + 8 = 8 1 + 7 = 8 2 + 6 = 8 3 + 5 = 8 4 + 4 = 8 5 + 3 = 86 + 2 = 8

- 7 + 1 = 88 + 0 = 8
- Step 2

Recite the number story, using rap style.

Sing the number story (perhaps using the tune for 'The Grand Old Duke of York').

Step4

Challenge the children to find how many number bonds there are in the number story of 8. (There are five different number bonds so there are only five to learn.) Use this to illustrate the commutative law (e.g. 1 + 7 = 8 and 7 + 1 = 8). Use the number story to build fact families that use addition and subtraction (e.g. 3 + 5 = 8, 8 - 5 = 3, 8 - 3 = 5).
Play 'I am thinking of the number story of 8.

Play 'I am thinking of the number story of 8. One of the numbers I am thinking of is 2. What is the other?'. Repeat with other numbers.



Repeat for the number bonds for 9.

Review all the number bonds to date by holding up a pair of numbers and asking the children to call out which number story they are in together (e.g. 3 and 2 are from the story of 5 as in 3 + 2 = 5, or from the story of 3 as in 3 - 2 = 1).

Question number	Question	Answer	Marks	Related test
1	5 - 1 =	4	1	Y1 Autumn Test 1, Y1 Autumn Test 2
2	= 4 - 4	0	1	Y1 Autumn Test 1, Y1 Autumn Test 2
3	1 + 5 =	6	1	Y1 Autumn Test 4
4	5 + 0 =	5	1	Y1 Autumn Test 3
5	= 9 − 3 6		1	Y1 Autumn Test 5
6	2 + 6 =	8	1	Y1 Autumn Test 5
	Total marks			





Autumn Test 5 (continued)



Total marks

/6

How well did you do?

Number bonds to 7	1	2	3	4
Number bonds for 8 and 9	5	6		
±0	4			
+	3	4	6	
-	1	2	5	

Teacher guidance

Skills and knowledge needed for this test:

- Number knowledge of 0 to 10
- +, and = signs

- Addition and subtraction with number bonds to 9
- Addition and subtraction of 0

New: Number bonds for 10

A teaching suggestion

Write out the number story of 10. 0 + 10 = 10

1 + 9 = 10 2 + 8 = 10 3 + 7 = 10 4 + 6 = 10 5 + 5 = 10 6 + 4 = 10 7 + 3 = 10 8 + 2 = 109 + 1 = 10

10 + 0 = 10

Step 2

Recite the number story, using rap style.

Sing the number story (you can use the tune for 'The Grand Old Duke of York').

Challenge the children to find how many number bonds there are in the number story of 10. (There are six different number bonds to learn.) Use this to work on the commutative law (e.g. 7 + 3 = 10 and 3 + 7 = 10).



Play 'I am thinking of the number story of 10. One of the numbers I am thinking of is 1. What is the other?'. Repeat with other numbers.

- Play the 'Memory Cards Game' with number bonds. Place two or three sets of cards, with the digits 0 to 9 written on them, face down on the floor. The children take turns to turn over two cards and keep the cards if they find a number bond for 10.
- Step7

Play 'Number Bond Bingo'. Each child writes four numbers from the number story of 10 on a whiteboard. You call a number and, if they have the number bond, they cross it out (e.g. if you call 3, they can cross out 7). The first child to cross out all their numbers is the winner.

As this is the most important number story the children will learn, it is essential to spend sufficient time over several weeks to learn, consolidate and embed it firmly in their memory.

Question Number	Question	Answer	Marks	Related test
1	5 – 1 =	4	1	Y1 Autumn Test 1, Y1 Autumn Test 2
2	5 - 5 =	0	1	Y1 Autumn Test 1, Y1 Autumn Test 2
3	$\Box = 3 + 5$	8	1	Y1 Autumn Test 5
4	6 + 0 =	6	1	Y1 Autumn Test 3
5	9 - 4 = 5		1	Y1 Autumn Test 5
6	= 3 + 7	10	1	Y1 Autumn Test 6
	Total	marks	6	





Autumn Test 6 (continued)



Total marks

/6

How well did you do?

Number bonds to 7	1	2	4
Number bonds for 8 and 9	3	5	
Number bonds for 10	6		
±0	4		
+	3	4	6
_	1	2	5

YEAR 1 ARITHMETIC PRACTICE TESTS

Spring Test 1

Teacher guidance

+, – and = signs

Skills and knowledge needed for this test:

- Number knowledge of 0 to 10
- Addition and subtraction with number bonds to 10
- Addition and subtraction of 0

New: Missing number statements

A teaching suggestion

```
Play games where you show the children
number statements with one number
missing. Explain that, to find the missing
number, the children need to use the
two numbers given in the calculation.
Show the children 7 + \Box = 10. Ask what
numbers you need to use to find the
missing number (i.e. 7 and 10). Repeat
with other missing number statements.
Always ask what the children will use to
find the missing number, and ensure that
they say the two numbers already in the
number statement.
```



Show the children $4 + \square = 9$. Ask what you need to use to find the missing number (i.e. 4 and 9). Make the link to number bonds for 9 to help the children see that they need to subtract the smaller number from the larger number to find the missing number: 9 - 4 = 5, so the missing number is 5. Check it in the original number statement: 4 + 5 = 9.

- Step
- Show the children $7 \square = 3$. Make the link to number bonds for 7 to help the children see that they need to subtract the smaller number from the larger number to find the missing number: 7 - 3 = 4, so the missing number is 4. Check it in the original number statement: 7 - 4 = 3.
- Step**4**
- Show the children $\square + 3 = 5$. Make the link to number bonds. 5 - 3 = 2, so the missing number is 2. Check it in the original number statement: 2 + 3 = 5.
- Show the children $\Box 6 = 2$. Make the link to number bonds to help the children see that they need to add the two numbers to find the missing number: 6 + 2 = 8, so the missing number is 8. Check it in the original number statement: 8 - 6 = 2.



Repeat with lots of examples, gradually moving to more independent work.

Question number	Question	Answer	Marks	Related test
1	5 + 2 =	7	1	Y1 Autumn Test 1
2	= 6 − 3	3	1	Y1 Autumn Test 4
3	8 - 0 =	8	1	Y1 Autumn Test 3
4	4 + 5 =	9	1	Y1 Autumn Test 5
5	5 + 5 =	10	1	Y1 Autumn Test 6
6	6 = 2	4	1	Y1 Autumn Test 4, Y1 Spring Test 1
7	8 = 2	10	1	Y1 Autumn Test 6, Y1 Spring Test 1
8	+ 1 = 10	9	1	Y1 Autumn Test 6, Y1 Spring Test 1
	Totalı	marks	8	





Spring Test 1 (continued)



How well did you do?

Number bonds to 7	1	2	6	
Number bonds for 8 and 9	3	4		
Number bonds for 10	5	7	8	
±0	3			
Missing number statements	6	7	8	
+	1	4	5	7
-	2	3	6	8

Teacher guidance

Skills and knowledge needed for this test:

- Number knowledge of 0 to 11
- +, and = signs
- Addition and subtraction with number bonds to 10

New: Number bonds for 11

A teaching suggestion

- Write out the number story of 11 (see Autumn Test 6 for the format).
 - Recite the number story, using rap style.
 - Sing the number story (perhaps using the tune for 'Twinkle, Twinkle').
- Play 'I am thinking of the number story of 11. One of the numbers I am thinking of is 6. What is the other?'. Repeat with other numbers.
- Challenge the children to find how many number bonds there are for 11. (There are six number bonds to learn.) Use this to illustrate the commutative law of addition (e.g. 3+8=11 and 8+3=11).

- Addition and subtraction of 0
- Missing number statements for addition and subtraction



Play 'Number Bond Bingo'. Each child writes four numbers from the number story of 11 on a whiteboard. You call a number and, if they have the number bond, they cross it out (e.g. if you call 3, they can cross out 8). The first child to cross out all their numbers is the winner.



Roll a dice. The children call out the number that needs to be added to the number shown to make 11. Alternatively, use a spinner numbered 0 to 11.

Question number	Question	Answer	Marks	Related test
1	6 + 1 =	7	1	Y1 Autumn Test 4
2	0 + 3 =	3	1	Y1 Autumn Test 3
3	= 7 - 5	2	1	Y1 Autumn Test 4
4	3 + 5 =	8	1	Y1 Autumn Test 5
5	5 = 4	1	1	Y1 Autumn Test 2, Y1 Spring Test 1
6	2 + 8 =	10	1	Y1 Autumn Test 6
7	8 + = 11	3	1	Y1 Spring Test 1, Y1 Spring Test 2
8	-6 = 4	10	1	Y1 Autumn Test 6, Y1 Spring Test 1
	Total ı	marks	8	





Spring Test 2 (continued)



How well did you do?

Number bonds to 9	1	2	3	4	5
Number bonds for 10	6	8			
Number bonds for 11	7				
±0	2				
Missing number statements	5	7	8		
+	1	2	4	6	8
-	3	5	7		

YEAR 1 ARITHMETIC PRACTICE TESTS

Spring Test 3

Teacher guidance

Skills and knowledge needed for this test:

- Number knowledge of 0 to 12
- +, and = signs
- Addition and subtraction with number bonds to 11

New: Number bonds for 12

A teaching suggestion

Step 1 Write of Autumr

Write out the number story of 12 (see Autumn Test 6 for the format).

Step 2

Recite the number story, using rap style.

Sing the number story (perhaps using the tune for 'Hickory Dickory Dock', twice).

Play 'I am thinking of the number story of 12. One of the numbers I am thinking of is 4. What is the other?'. Repeat with other numbers.

Give the children 12 objects and challenge them to split them into two groups in as many ways as they can, recording their work as number statements. Ask them to spot the number statements that show the commutative law of addition.

• Addition and subtraction of 0

Missing number statements for addition and subtraction



Play 'Number Bond Bingo'. Each child writes four numbers from the number story on a whiteboard. You call a number and, if they have the number bond, they cross it out (e.g. if you call 3, they can cross out 9). The first child to cross out all their numbers is the winner.

Step7

Spin a spinner numbered 0 to 12. The children call out the number that needs to be added to the number shown to make 12.

Give the children pairs of egg boxes fastened together. Using two colours, ask the children to colour each egg shape in one of the two colours. When they have coloured all of the 12 egg shapes, they can write the number bond they have made and create a display showing the story of 12.

Question number	Question	Answer	Marks	Related test
1	4 + 2 =	6	1	Y1 Autumn Test 4
2	= 3 + 4	7	1	Y1 Autumn Test 4
3	0 + 0 =	0	1	Y1 Autumn Test 3
4	2 + _ = 9	7	1	Y1 Autumn Test 5, Y1 Spring Test 1
5	6 + 5 =	11	1	Y1 Spring Test 2
6	-3 = 7	10	1	Y1 Autumn Test 6, Y1 Spring Test 1
7	5 + 7 =	12	1	Y1 Spring Test 3
8	12 = 1 11		1	Y1 Spring Test 1, Y1 Spring Test 3
	Total marks			





Spring Test 3 (continued)



How well did you do?

Number bonds to 9	1	2	4			
Number bonds for 10	6					
Number bonds for 11 and 12	5	7	8			
±0	3					
Missing number statements	4	6	8			
+	1	2	3	5	6	7
-	4	8				

Teacher guidance

Skills and knowledge needed for this test:

- Number knowledge of 0 to 20
- +, and = signs
- Addition and subtraction with number bonds to 12
- Addition and subtraction of 0
- Missing number statements for addition and subtraction

New: Addition or subtraction of 1 to a number between 10 and 20

A teaching suggestion

- Step 1
- Use a number line to 20 to look at one more and one less than numbers from 10 to 20. Emphasise that adding one gives the next counting number and subtracting one gives the previous counting number, illustrating this with the number line.



Repeat without the number line, encouraging the children to visualise the number line in their head. Move to written work, using the + sign for 'more' and the – sign for 'less', extending the meaning of these symbols for the children.

Question number	Question	Answer	Marks	Related test
1	2 + 3 =	5	1	Y1 Autumn Test 1
2	3 - 1 =	2	1	Y1 Autumn Test 2
3	6 + = 10	4	1	Y1 Autumn Test 6, Y1 Spring Test 1
4	14 + 1 =	15	1	Y1 Spring Test 4
5	= 11 + 0	11	1	Y1 Autumn Test 3
6	17 – 1 =	16	1	Y1 Spring Test 4
7	5 + 6 =	11	1	Y1 Spring Test 2
8	5 = 7	12	1	Y1 Spring Test 1, Y1 Spring Test 3
Total marks			8	





Spring Test 4 (continued)



How well did you do?

Number bonds to 9	1	2			
Number bonds for 10	3				
Number bonds for 11 and 12	5	7	8		
±1 to a number between 10 and 20	4	6			
±0	5				
Missing number statements	3	8			
+	1	4	5	7	8
-	2	3	6		

YEAR 1 ARITHMETIC PRACTICE TESTS

Spring Test 5

Teacher guidance

Skills and knowledge needed for this test:

- Number knowledge of 0 to 20
- +, and = signs
- Addition and subtraction with number bonds to 12
- Addition or subtraction of 1 to a number between 10 and 20
- Addition and subtraction of 0
- Missing number statements for addition and subtraction

New: Addition of 10 to a single-digit number

A teaching suggestion

Use a set of place value cards where the tens card is double the width of the ones card, so that placing a ones card on the tens card covers the 0 but not the 1 (as shown below).





Step 1

Explain that the children are going to be adding 10 to single-digit numbers.

Show them a card with the number 10 on it and a card with the number 5. Use a number line to add them together. Show how the two cards fit together to make the answer 15.



Slide the ones card on and off to emphasise that the 10 is still there but that the 0 is hidden by the 5. Check this by adding the 0 and 5 to make the 5. Repeat with other numbers, writing the number statements as they are completed.



Look at the pattern in the number statements and the answers and chant them through, enjoying the repetition of the patterns.



Challenge the children to use the commutative law of addition to make some new number statements.

Question number	Question	Answer	Marks	Related test
1	=4+4	8	1	Y1 Autumn Test 5
2	5 - 2 =	3	1	Y1 Autumn Test 2
3	3 + = 8	5	1	Y1 Autumn Test 5, Y1 Spring Test 1
4	9 + 0 =	9	1	Y1 Autumn Test 3
5	10 + 8 =	18	1	Y1 Spring Test 5
6	7 = 3	10	1	Y1 Autumn Test 6, Y1 Spring Test 1
7	6 + 10 =	16	1	Y1 Spring Test 5
8	+ 4 = 12	8	1	Y1 Spring Test 1, Y1 Spring Test 3
	Total marks			

Name:	Class: Date:	
1	= 4 + 4	
2	5 - 2 =	
3	3 + 8	
4	9 + 0 =	
5	10 + 8 =	

Spring Test 5 (continued)



How well did you do?

Number bonds to 9	1	2	3	4	
Number bonds for 10	6				
Number bonds for 11 and 12	8				
±0	4				
+10 to a single-digit number	5	7			
Missing number statements	3	6	8		
+	1	4	5	6	7
-	2	3	8		

Teacher guidance

Skills and knowledge needed for this test:

- Number knowledge of 0 to 20
- +, and = signs
- Addition and subtraction with number bonds to 12
- Addition or subtraction of 1 to a number between 10 and 20



- Addition and subtraction of 0
- Addition of 10 to a single-digit number
- Missing number statements for addition and subtraction

New: Subtraction of 10 from a number between 11 and 19

A teaching suggestion

Use a set of place value cards where the tens card is double the width of the ones card, so that placing a ones card on the tens card covers the 0 but not the 1.





Explain that the children are going to be subtracting 10 from numbers between 11 and 19.



Show them a 10 card with a 5 card fitted over it so it reads as 15. Use a number line to subtract 10. Show how the two cards slide apart to make the answer 5.



Slide the ones card on and off to emphasise that the 10 was there all the time but that the 0 was hidden by the 5. Check this by adding 10 and 5 to make 15. Repeat with other numbers, writing the number statements as they are completed. Illustrate how the commutative law does not work with subtraction (15 - 5 = 10 but $5 - 15 \neq 10).$



Look at the pattern in the number statements and the answers and chant them through, enjoying the repetition of the patterns.

Question number	Question	Answer	Marks	Related test
1	2 + 0 =	2	1	Y1 Autumn Test 3
2	= 7 − 2	5	1	Y1 Autumn Test 4
3	11 – 1 =	10	1	Y1 Spring Test 2, Y1 Spring Test 4
4	16 + _ = 17	1	1	Y1 Spring Test 1, Y1 Spring Test 4
5	10 + = 14	4	1	Y1 Spring Test 1, Y1 Spring Test 5
6	□ − 9 = 3 12		1	Y1 Spring Test 1, Y1 Spring Test 3
7	17 - 10 =	7	1	Y1 Spring Test 6
8	14 - 🗌 = 10	4	1	Y1 Spring Test 1, Y1 Spring Test 6
	Total marks			



Spring Test 6 (continued)



How well did you do?

Number bonds to 9	1	2				
Number bonds for 11 and 12	3	6				
±0	1					
±1 to a number between 10 and 20	3	4				
+10 to a single-digit number	5					
–10 from a number between 1 and 19	7	8				
Missing number statements	4	5	6	8		
+	1	6				
-	2	3	4	5	7	8
YEAR 1 ARITHMETIC PRACTICE TESTS

Summer Test 1

Teacher guidance

Skills and knowledge needed for this test:

- Number knowledge of 0 to 20
- +, and = signs
- Addition and subtraction with number bonds to 12
- Addition or subtraction of 1 to a number between 10 and 20 · Missing number statements for addition and subtraction
- Addition and subtraction of 0
- Addition of 10 to a single-digit number
- Subtraction of 10 from a number between 11 and 19

New: The number bonds for 13, 14 and 15

A teaching suggestion



Display the number stories of 3 and 13 like this:

115.	
0 + 3 = 3	0 + 13 = 13
1 + 2 = 3	1 + 12 = 13
2 + 1 = 3	2 + 11 = 13
3 + 0 = 3	3 + 10 = 13
	4 + 9 = 13
	5 + 8 = 13
	6 + 7 = 13
	7 + 6 = 13
	8 + 5 = 13
	9 + 4 = 13
0 + 3 = 3	10 + 3 = 13
1 + 2 = 3	11 + 2 = 13
2 + 1 = 3	12 + 1 = 13
3 + 0 = 3	13 + 0 = 13



Look for the similarities and differences in the number stories of 3 and 13. Ask the children to explain how they are similar and how they are different. Ask how this could help them to learn the number story of 13. Learn the number bonds for 13 that are related to the story of 3.

Look at the pairs in the middle of the number story of 13 that are not related to the number story of 3. Use the games and activities in Autumn Test 6 and Spring Tests 2 and 3 to help the children learn the new number bonds.

Repeat for the number stories of 4 and 14, and 5 and 15.

Question number	Question	Answer	Marks	Related test
1	4 + 3 =	7	1	Y1 Autumn Test 4
2	= 8 - 6	2	1	Y1 Autumn Test 5
3	-9 = 1	10	1	Y1 Autumn Test 6, Y1 Spring Test 1
4	12 - 0 =	12	1	Y1 Autumn Test 3
5	+ 7 = 14	7	1	Y1 Spring Test 1, Y1 Summer Test 1
6	9 + 5 =	14	1	Y1 Summer Test 1
7	10 + = 18	8	1	Y1 Spring Test 1, Y1 Spring Test 6
8	6 + 7 =	13	1	Y1 Summer Test 1
9	11 + 2 =	13	1	Y1 Summer Test 1
10	15 = 8	7	1	Y1 Spring Test 1, Y1 Summer Test 1
	Total marks		10	





Summer Test 1 (continued)

7	10 + = 18	
8	6 + 7 =	
9	11 + 2 =	
10	15 - 8	
<u> </u>		40

Total marks

/10

How well did you do?

Number bonds to 9	1	2				
Number bonds for 10	3					
Number bonds for 11 to 15	4	5	6	8	9	10
±0	4					
±1 to a number between 10 and 20	3					
–10 from a number between 1 and 19	7					
Missing number statements	3	5	7	10		
+	1	3	6	8	9	
-	2	4	5	7	10	

Teacher guidance

Skills and knowledge needed for this test:

- Number knowledge of 0 to 20
- +, and = signs
- Addition and subtraction with number bonds to 15
- Addition or subtraction of 1 to a number between 10 and 20 Missing number statements for addition and subtraction

New: Addition of 9 to a single-digit number

A teaching suggestion

Explain to the children that they are going to be number detectives, hunting for a very important pattern. Show them the number 9 and tell them this is the number that will create the pattern.

- Start by adding 1 + 9 using a number line. Get the children to write the calculation and answer in their maths books.
- Next they add 2 + 9 and write the calculation and answer in their books. Continue with 3 + 9 and 4 + 9.

- Addition and subtraction of 0
- Addition of 10 to a single-digit number
- Subtraction of 10 from a number between 11 and 19

Challenge the children to find the pattern in the answers. Can they predict the answer to 5 + 9? Work out the answer to check their predictions.



Continue working out 6 + 9 through to 9 + 9, asking for and checking predicted answers.



Ensure that all the children have correctly identified that the ones digit decreases by 1 (i.e. a 10 is added and 1 is subtracted).

Consolidate the commutative law of addition by reversing the order of addition and checking that the answers are the same (e.g. 9 + 2 and 2 + 9).

Question number	Question	Answer	Marks	Related test
1	= 3 - 1	2	1	Y1 Autumn Test 2
2	14 + 0 =	14	1	Y1 Autumn Test 3
3	6 = 4	2	1	Y1 Autumn Test 4, Y1 Spring Test 1
4	5 + 5 =	10	1	Y1 Autumn Test 6
5	= 10 + 5	15	1	Y1 Spring Test 5
6	13 - 1 =	12	1	Y1 Spring Test 4
7	6 + 9 =	15	1	Y1 Summer Test 2
8	+ 2 = 12	10	1	Y1 Spring Test 1, Y1 Spring Test 3
9	19 = 10	9	1	Y1 Spring Test 1, Y1 Spring Test 6
10	8 + 9 =	17	1	Y1 Summer Test 2
	Total marks		10	





Summer Test 2 (continued)



Total marks

/10

How well did you do?

Number bonds to 9	1	3			
Number bonds for 10	4				
Number bonds for 11 to 15	2	5	6	7	8
±0	2				
±1 to a number between 10 and 20	6				
+10 to a single-digit number	5				
–10 from a number between 1 and 19	9				
+9 to a single-digit number	7	10			
Missing number statements	3	8	9		
+	2	4	5	7	10
-	1	3	6	8	9

YEAR 1 ARITHMETIC PRACTICE TESTS

Summer Test 3

Teacher guidance

Skills and knowledge needed for this test:

- Number knowledge of 0 to 20
- +, and = signs
- Addition and subtraction with number bonds to 15
- Addition or subtraction of 1 to a number between 10 and 20
- Addition and subtraction of 0
- Addition of 9 or 10 to a single-digit number
- Subtraction of 10 from a number between 11 and 19
- Missing number statements for addition and subtraction

New: Number bonds for 16 and 17

A teaching suggestion

Display the number stories of 6 and of 16 like this:

0 + 6 = 6	0 + 16 = 16
1 + 5 = 6	1 + 15 = 16
2 + 4 = 6	2 + 14 = 16
3 + 3 = 6	3 + 13 = 16
4 + 2 = 6	4 + 12 = 16
5 + 1 = 6	5 + 11 = 16
6 + 0 = 6	6 + 10 = 16
	7 + 9 = 16
	8 + 8 = 16
0 + 6 = 6	10 + 6 = 16
1 + 5 = 6	11 + 5 = 16
2 + 4 = 6	12 + 4 = 16
3 + 3 = 6	13 + 3 = 16
4 + 2 = 6	14 + 2 = 16
5 + 1 = 6	15 + 1 = 16
6 + 0 = 6	16 + 0 = 16



Look for the similarities and differences in the number stories of 6 and 16. Ask the children to explain how they are similar and how they are different. Ask how this could help them to learn the number story of 16. Learn those pairs.

Look at the pairs in the middle of the number story of 16 that are not related to the number story of 6. Use the games and activities in Autumn Test 6 and Spring Tests 2 and 3 to help learn the new number bonds.

Repeat with the number stories of 7 and 17.

Question number	Question	Answer	Marks	Related test
1	2 + 5 =	7	1	Y1 Autumn Test 4
2	4 - 3 =	1	1	Y1 Autumn Test 2
3	= 8 + 0	8	1	Y1 Autumn Test 3
4	10 - 2 =	8	1	Y1 Autumn Test 6
5	14 - 🗌 = 1	13	1	Y1 Spring Test 1, Y1 Spring Test 4
6	3 + 10 =	13	1	Y1 Spring Test 5
7	8 + 8 =	16	1	Y1 Summer Test 3
8	18 = 10	8	1	Y1 Spring Test 1, Y1 Spring Test 6
9	6 + 9 =	15	1	Y1 Summer Test 1
10	8 = 9	17	1	Y1 Spring Test 1, Y1 Summer Test 2
Total marks		10		





Summer Test 3 (continued)



Total marks

/10

How well did you do?

Number bonds to 9	1	2	3			
Number bonds for 10	4					
Number bonds for 11 to 17	5	6	7	9	10	
±0	3					
±1 to a number between 10 and 20	5					
+10 to a single-digit number	6					
–10 from a number between 1 and 19	8					
+9 to a single-digit number	9	10				
Missing number statements	5	8	10			
+	1	3	6	7	9	10
-	2	4	5	8		

Teacher guidance

Skills and knowledge needed for this test:

- Number knowledge of 0 to 20
- +, and = signs
- Addition and subtraction with number bonds to 17
- Addition or subtraction of 1 to a number between 10 and 20

New: Number bonds for 18 and 19

A teaching suggestion



Display the number stories of 8 and 18 like	
this:	

0 + 8 = 8	0 + 18 = 18
1 + 7 = 8	1 + 17 = 18
2 + 6 = 8	2 + 16 = 18
3 + 5 = 8	3 + 15 = 18
4 + 4 = 8	4 + 14 = 18
5 + 3 = 8	5 + 13 = 18
6 + 2 = 8	6 + 12 = 18
7 + 1 = 8	7 + 11 = 18
8 + 0 = 8	8 + 10 = 18
	9 + 9 = 18
0 + 8 = 8	10 + 8 = 18
1 + 7 = 8	11 + 7 = 18
2 + 6 = 8	12 + 6 = 18
3 + 5 = 8	13 + 5 = 18
4 + 4 = 8	14 + 4 = 18
5 + 3 = 8	15 + 3 = 18
6 + 2 = 8	16 + 2 = 18

- Addition of 9 or 10 to a single-digit number
- Subtraction of 10 from a number between 11 and 19
- Missing number statements for addition and subtraction

7 + 1 = 8	17 + 1 = 18
8 + 0 = 8	18 + 0 = 18

Look for the similarities and differences in the number stories of 8 and 18. Ask the children to explain how they are similar and how they are different. Ask how this could help them to learn the number story of 18. Learn those pairs. Relate this to the addition and subtraction of 8. Emphasise that this only leaves one completely new number bond to learn.

Use the games and activities in Autumn Test 6 and Spring Tests 2 and 3 to help learn the number bonds.

Repeat with the number stories of 9 and 19.

Question number	Question	Answer	Marks	Related test
1	= 5 + 3	8	1	Y1 Autumn Test 5
2	13 + 0 =	13	1	Y1 Autumn Test 3
3	18 - 1 =	17	1	Y1 Spring Test 4
4	4 + = 14	10	1	Y1 Spring Test 1, Y1 Spring Test 5
5	5 + 6 =	11	1	Y1 Spring Test 2
6	5 + 9 =	14	1	Y1 Summer Test 1, Y1 Summer Test 2
7	-4 = 5	9	1	Y1 Autumn Test 5, Y1 Spring Test 1
8	10 5	5	1	Y1 Autumn Test 6, Y1 Spring Test 1
9	= 18 - 12	6	1	Y1 Summer Test 4
10	13 + 6 =	19	1	Y1 Summer Test 4
	Total	marks	10	





Summer Test 4 (continued)



How well did you do?

Number bonds to 9	1	7					
Number bonds for 10	8						
Number bonds for 11 to 19	2	3	4	5	6	9	10
±0	2						
±1 to a number between 10 and 20	3						
+10 to a single-digit number	4						
+9 to a single-digit number	6						
Missing number statements	4	7	8				
+	1	2	5	6	7	10	
-	3	4	8	9			

YEAR 1 ARITHMETIC PRACTICE TESTS

Summer Test 5

Teacher guidance

Skills and knowledge needed for this test:

- Number knowledge of 0 to 20
- +, and = signs
- Addition and subtraction with number bonds to 19
- Addition or subtraction of 1 to a number between 10 and 20
 Missing number statements for addition and subtraction

New: Number bond for 20

A teaching suggestion



Challenge the children to use their knowledge of other number stories to work with a partner and build the number story of 20. They could make it into a booklet and include illustrations that link the number story of 20 to the number story of 10 (e.g. 4 + 6 = 10 and 16 + 4 = 20).



Ask the children to work in pairs to write the fact families for different number statements in the number story of 20 (e.g. 16 + 4 = 20, 20 - 16 = 4, 20 - 4 = 16).

- Addition and subtraction of 0
- · Addition of 9 or 10 to a single-digit number
- Subtraction of 10 from a number between 11 and 20



Use the games listed in earlier teaching suggestions to consolidate this important number story.

As this is another very important number story for the children to learn, it is essential to spend sufficient time over several weeks to learn, consolidate and embed it firmly in their memory.

Question number	Question	Answer	Marks	Related test
1	1 + 17 =	18	1	Y1 Autumn Test 5, Y1 Spring Test 4
2	=0+9	9	1	Y1 Autumn Test 3
3	3 + 9 =	12	1	Y1 Spring Test 3
4	19 - 2 =	17	1	Y1 Summer Test 4
5	7 = 8	15	1	Y1 Spring Test 1, Y1 Summer Test 1
6	15 - 10 =	5	1	Y1 Spring Test 6
7	7 + = 17	10	1	Y1 Spring Test 1, Y1 Summer Test 3
8	= 16 - 5	11	1	Y1 Summer Test 3
9	12 - 8 =	4	1	Y1 Spring Test 3
10	+ 3 = 19	16	1	Y1 Spring Test 1, Y1 Summer Test 4
	Totalı	marks	10	



Summer Test 5 (continued)



Total marks

/10

How well did you do?

Number bonds to 9	1	2						
Number bonds for 11 to 20	3	4	5	6	7	8	9	10
±0	2							
±1 to a number between 10 and 20	1							
+10 to a single-digit number	7							
–10 from a number between 1 and 19	6							
+9 to a single-digit number	2	3						
Missing number statements	5	7	10					
+	1	2	3	5				
_	4	6	7	8	9	10		

Teacher guidance

Skills and knowledge needed for this test:

- Number knowledge of 0 to 20
- +, and = signs
- Addition and subtraction with number bonds to 20
- Addition or subtraction of 1 to a number between 10 and 20
- Addition and subtraction of 0
- Addition of 9 or 10 to a single-digit number
- Subtraction of 10 from a number between 11 and 19
- Missing number statements for addition and subtraction

There are no new skills. This is the end of year test.

Question number	Question	Answer	Marks	Related test
1	= 0 + 0	0	1	Y1 Autumn Test 3
2	10 - 8 =	2	1	Y1 Autumn Test 6
3	= 1 + 13	14	1	Y1 Spring Test 4
4	7 + 7 =	14	1	Y1 Summer Test 1
5	4 + 9 =	13	1	Y1 Summer Test 2
6	4 + = 14	10	1	Y1 Spring Test 1, Y1 Summer Test 1
7	12 + 5 =	17	1	Y1 Summer Test 3
8	10 = 9	19	1	Y1 Spring Test 1, Y1 Spring Test 5
9	17 - 9 =	8	1	Y1 Summer Test 3
10	15 = 15	0	1	Y1 Autumn Test 3, Y1 Spring Test 1
	Total	marks	10	





Summer Test 6 (continued)

7	12 + 5 =	
8	- 10 = 9	
9	17 – 9 =	
10	15 - = 15	

Total marks

/10

How well did you do?

Number bonds to 9	1							
Number bonds for 10	2							
Number bonds for 11 to 20	3	4	5	6	7	8	9	10
±0	1	10						
±1 to a number between 10 and 20	3							
+10 to a single-digit number	6							
–10 from a number between 1 and 19	8							
+9 to a single-digit number	5							
Missing number statements	6	8	10					
+	1	3	4	5	7	8		
-	2	6	9	10				