



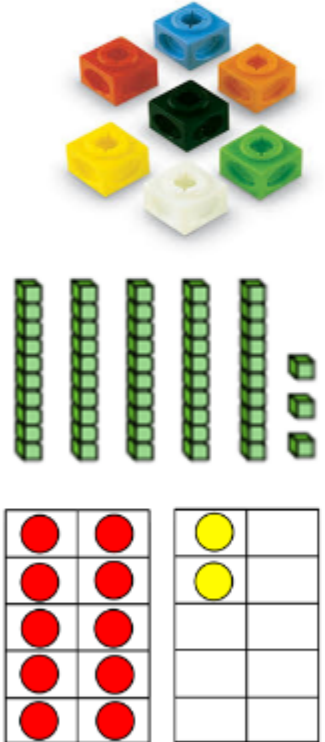
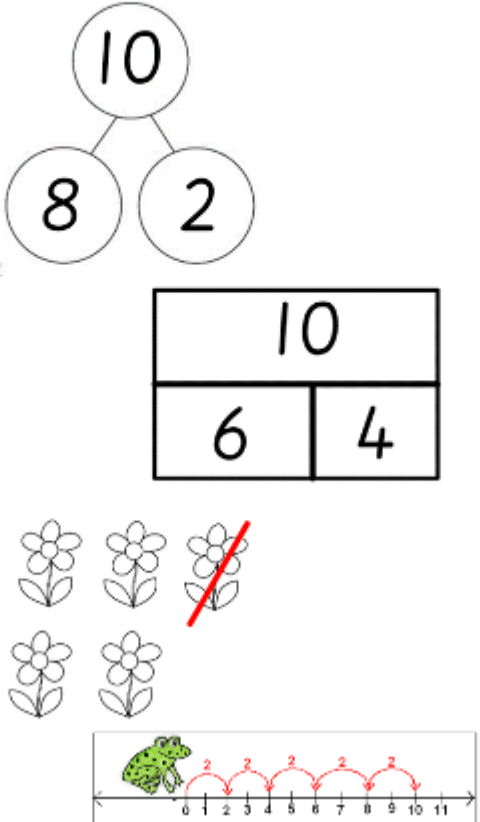
Welcome to West Park Academy

Maths at Key Stage 1

Year 1 and 2

Thursday 12th October 2017

We ensure children have a deep understanding.

Concrete	Pictorial	Abstract
		$\boxed{10} = 6 + 4$ $24 + 13 = \square$ $20 + 10 = 30$ $4 + 3 = 7$ $30 + 7 = 37$

Fluency

Year 1 and 2 spend 10 minutes at the start of each lesson practising fluency. This includes number facts, time tables and anything that requires quick recall. We also begin each unit with a fluency lesson.

Add and Subtract 1s

Varied Fluency

- 1 Create sentences based on the picture.



Example

There are 4 children playing in a park. One more child joins them so there will be 5 children playing together.

- 2 Continue the pattern

$$22 = 29 - 7$$

$$22 = 28 - 6$$

Can you create an addition pattern by adding in ones and starting at the number 13?

- 3 Continue the number tracks below.

31			34		
----	--	--	----	--	--

		45			48
--	--	----	--	--	----

				67	
--	--	--	--	----	--

	13				
--	----	--	--	--	--

Reasoning and Problem Solving

Every child is given the opportunity to apply their mathematical knowledge.

We encourage children to reason and explain their answers, including using their explanations to support their peers.

In Year 1 and 2 children are given problems to solve either individually, in mixed ability pairs or groups. They do this by applying prior learning.

Add and Subtract 1s

Reasoning and Problem Solving

True or False?

These four calculations have the same answer.

$$1 + 4 + 2 \quad 4 + 2 + 1$$

$$2 + 4 + 1 \quad 4 + 1 + 2$$

These four calculations have the same answer.

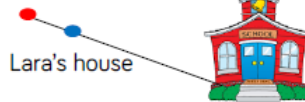
$$7 - 3 - 2 \quad 2 - 3 - 7$$

$$3 - 2 - 7 \quad 7 - 2 - 3$$

True

False

Sam's house



Lara's house

Sam lives 5km from school.
Laura lives 4km from school in the same direction.

What is the distance between Sam's and Laura's houses?

1km

After travelling to and from school, Sam thinks that he will walk 1km more than Laura. Is he correct?

No, he will walk 2km further. 1 on the way to school and one on the way home.

What will be the difference in distance walked after 2 school days?

4km

Place Value

Year 1

Year 2

Small Steps

- Sort objects
- Count objects
- Represent objects
- Count, read and write forwards from any number 0 to 10
- Count, read and writing backwards from any number 0 to 10
- Count one more
- Count one less
- One to one correspondence to start to compare groups
- Compare groups using language such as equal, more/greater, less/fewer
- Introduce =, > and < symbols
- Compare numbers
- Order groups of objects
- Order numbers
- Ordinal numbers (1st, 2nd, 3rd ...)
- The number line

Small Steps

- Count objects to 100 and read and write numbers in numerals and words
- Represent numbers to 100
- Tens and ones with a part whole model
- Tens and ones using addition
- Use a place value chart
- Compare objects
- Compare numbers
- Order objects and numbers
- Count in 2s, 5s and 10s
- Count in 3s

Addition and Subtraction

Year 1

Small Steps

- Part whole model
- Addition symbol
- Fact families - Addition facts
- Find number bonds for numbers within 10
- Systematic methods for number bonds within 10
- Number bonds to 10
- Compare number bonds
- Addition: Adding together
- Addition: Adding more
- Finding a part
- Subtraction: Taking away, how many left? Crossing out
- Subtraction: Taking away, how many left? Introducing the subtraction symbol
- Subtraction: Finding a part, breaking apart
- Fact families - The 8 facts
- Subtraction: Counting back
- Subtraction: Finding the difference
- Comparing addition and subtraction statements $a + b > c$
- Comparing addition and subtraction statements $a + b > c + d$

Year 2

Small Steps

- Fact families - Addition and subtraction bonds to 20
- Check calculations
- Compare number sentences
- Related facts
- Bonds to 100 (tens)
- Add and subtract 1s
- 10 more and 10 less
- Add and subtract 10s
- Add a 2-digit and 1-digit number - crossing ten
- Subtract a 1-digit number from a 2-digit number - crossing ten
- Add two 2-digit numbers - not crossing ten - add ones and add tens
- Add two 2-digit numbers - crossing ten - add ones and add tens
- Subtract a 2-digit number from a 2-digit number - not crossing ten
- Subtract a 2-digit number from a 2-digit number - crossing ten - subtract ones and tens
- Bonds to 100 (tens and ones)
- Add three 1-digit numbers

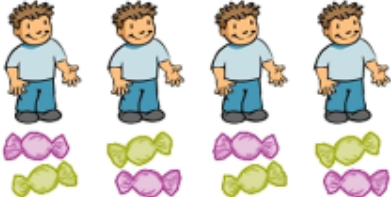
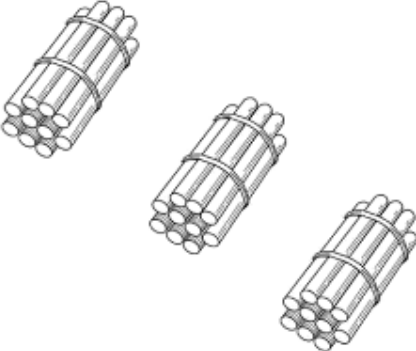
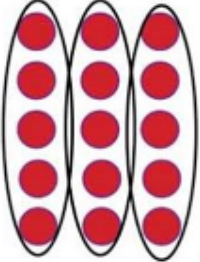
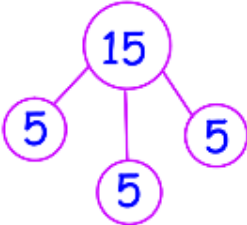
Secure Knowledge of Number Facts

- Real life contexts
- Application for bigger numbers
e.g. $5+2 = 7$
 $15+2 = 17$
- Link to subtraction
e.g. $3+4 = 7$
 $7-4 = 3$
- Doubles link into multiplication and times table facts

		Adding 1		Bonds to 10		Adding 10		Bridging/compensating		Y1 facts		
		Adding 2		Adding 0		Doubles		Near doubles		Y2 facts		
+		0	1	2	3	4	5	6	7	8	9	10
0		0+0	0+1	0+2	0+3	0+4	0+5	0+6	0+7	0+8	0+9	0+10
1		1+0	1+1	1+2	1+3	1+4	1+5	1+6	1+7	1+8	1+9	1+10
2		2+0	2+1	2+2	2+3	2+4	2+5	2+6	2+7	2+8	2+9	2+10
3		3+0	3+1	3+2	3+3	3+4	3+5	3+6	3+7	3+8	3+9	3+10
4		4+0	4+1	4+2	4+3	4+4	4+5	4+6	4+7	4+8	4+9	4+10
5		5+0	5+1	5+2	5+3	5+4	5+5	5+6	5+7	5+8	5+9	5+10
6		6+0	6+1	6+2	6+3	6+4	6+5	6+6	6+7	6+8	6+9	6+10
7		7+0	7+1	7+2	7+3	7+4	7+5	7+6	7+7	7+8	7+9	7+10
8		8+0	8+1	8+2	8+3	8+4	8+5	8+6	8+7	8+8	8+9	8+10
9		9+0	9+1	9+2	9+3	9+4	9+5	9+6	9+7	9+8	9+9	9+10
10		10+0	10+1	10+2	10+3	10+4	10+5	10+6	10+7	10+8	10+9	10+10

Multiplication and Division

Year 1 & Year 2

 	  <table border="1" data-bbox="950 1082 1230 1218"><tr><td colspan="3">15</td></tr><tr><td>5</td><td>5</td><td>5</td></tr></table>	15			5	5	5	$3 \times 2 = \square$ $6 \div 2 = \square$
15								
5	5	5						

Times tables

Year 1

- Counting forwards and backwards to 100
- Counting in 2s, 5s, 10s
- It is not linked to times tables

Year 2

- Recall 2, 5, 10 times tables
- Counting in steps of 2, 3, 5, 10 from 0 forwards and backwards
- Counting in 10s from any number forwards and backwards



My Times Tables

2 times table	5 times table	10 times table
0 x 2 = 0	0 x 5 = 0	0 x 10 = 0
1 x 2 = 2	1 x 5 = 5	1 x 10 = 10
2 x 2 = 4	2 x 5 = 10	2 x 10 = 20
3 x 2 = 6	3 x 5 = 15	3 x 10 = 30
4 x 2 = 8	4 x 5 = 20	4 x 10 = 40
5 x 2 = 10	5 x 5 = 25	5 x 10 = 50
6 x 2 = 12	6 x 5 = 30	6 x 10 = 60
7 x 2 = 14	7 x 5 = 35	7 x 10 = 70
8 x 2 = 16	8 x 5 = 40	8 x 10 = 80
9 x 2 = 18	9 x 5 = 45	9 x 10 = 90
10 x 2 = 20	10 x 5 = 50	10 x 10 = 100
11 x 2 = 22	11 x 5 = 55	11 x 10 = 110
12 x 2 = 24	12 x 5 = 60	12 x 10 = 120

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Any Questions?