

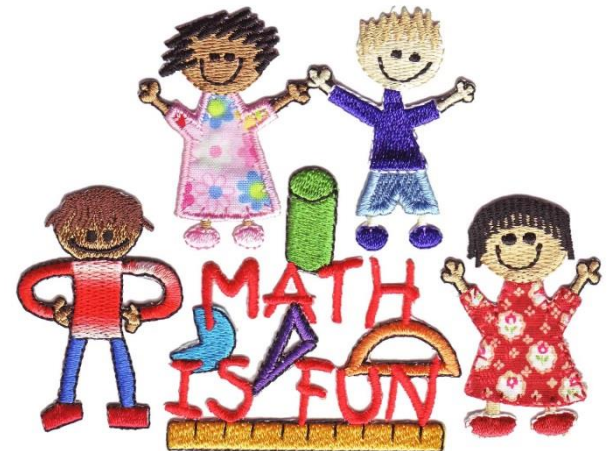
# Y3 Parent Workshop for Maths

26 May 2016

Miss de Normanville  
and Miss Naughton

# What will we cover...?

- The New Curriculum – what's new in Year 3.
- The 4 operations – including methods used and progression.
- Your turn to have a go!
- How you can help at home.



# What's new?

- Focus on 6 main topics each term
- Increased focus on number
- Roman Numerals when reading the time
- Adding and subtracting fractions
- Less focus on statistics
- Larger numbers
- Levels have been replaced by year group expectations

*High  
expectations  
are the key to  
everything.*

*Sam Walton*

# High expectations in the New National Curriculum

By the end of year 3 pupils should:

- Become increasingly fluent with whole numbers and the four operations including number facts and the concept of place value.
- Should read and spell mathematical vocabulary correctly and confidently
- Should develop efficient written and mental methods and perform calculations accurately with increasingly large whole numbers.

# Times tables



By the end of year 3 pupils should:

- recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables
- write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods

	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

# Calculations



Why so many methods?

Children are entitled to be taught and to acquire secure **mental** methods and efficient **written** methods of calculation for **each operation** which they know they can rely on when mental methods are not appropriate.

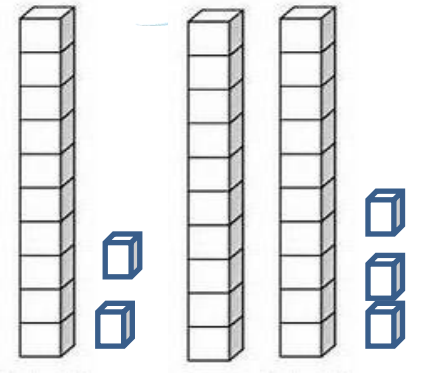
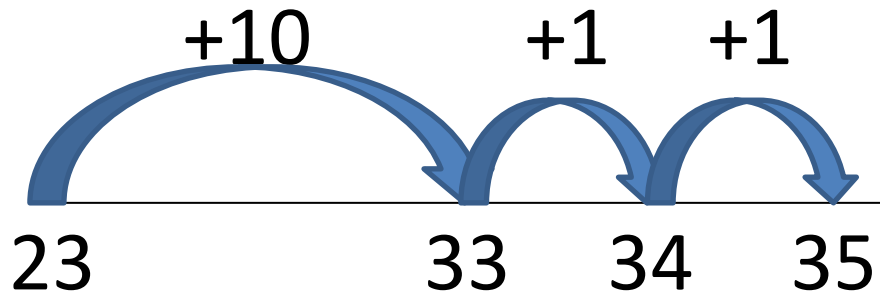
We teach them a range so they can choose the one they prefer and proves most accurate for them.



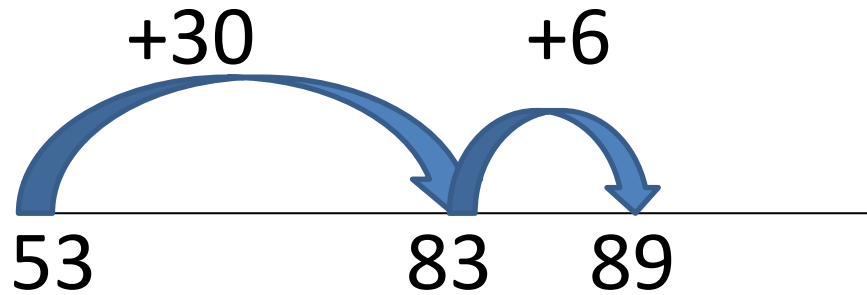
# Adding



$12+23=$



$36+53=$



$$\begin{aligned} 53+36 &= 53+30+6 \\ &= 83+6 \\ &= 89 \end{aligned}$$



# Adding



Expanded Column method:

$$83+42=125$$

T U

$$80+3$$

$$+ \underline{40+2}$$

$$120+5$$

move to

$$83$$

$$\underline{42 +}$$

$$125$$





# Adding



Expanded column addition with carrying over:

$$345 + 248 = 593$$

	H	T	U	
345	300	40	5	
248 +	200	40	8	+
<u>1</u>		<u>10</u>		
593	500	90	3	

Choose a method you are unfamiliar with to solve these sums.

1.  $73+57$

2.  $153+89$

3.  $163+144$

4.  $287+193$

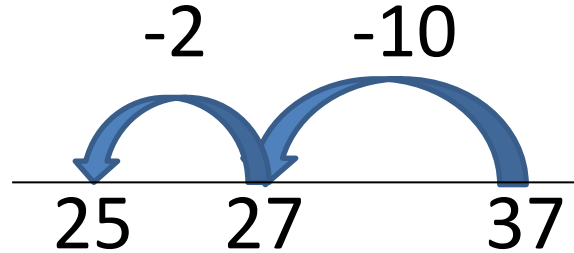




# Subtracting



$$37-12=$$



$$\begin{aligned} 37-12 &= 37-10-2 \\ &= 27-2 \\ &= 25 \end{aligned}$$

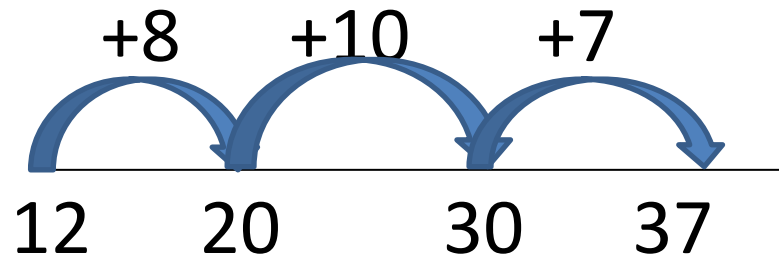
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



# Subtracting



$$37 - 12 =$$



Subtracting by finding the difference  
- adding on

100 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



# Subtracting



Expanded column method:

$$98 - 24 = 74$$

T U

$$\begin{array}{r} 90 + 8 \\ - 20 + 4 \\ \hline 70 + 4 \end{array}$$

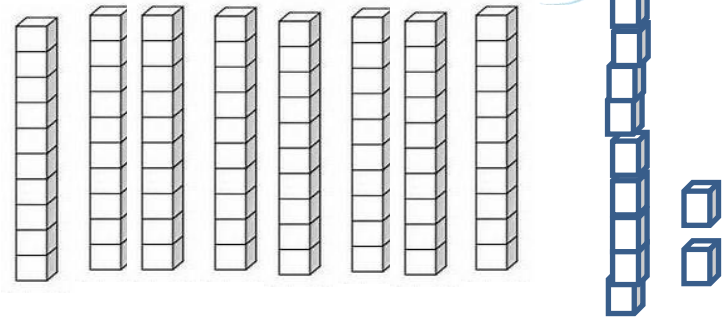


# Subtracting



Expanded column method with exchanging:

$$92 - 38 = 54$$



$$\begin{array}{r} 90 + 2 \\ - 30 + 8 \\ \hline \end{array}$$



$$\begin{array}{r} 80 + 12 \\ - 30 + 8 \\ \hline 50 + 4 \end{array}$$



# Subtracting



Expanded column method with exchanging:

T	U
80	12
<del>90</del>	<del>2</del>
<u>-30</u>	8
50	4

$$364 - 237 = 127$$

5	14	
3	<del>6</del>	<del>4</del>
2	3	7-
<hr/>		
1	3	7



H	T	U
	50	14
300	<del>60</del>	<del>4</del>
200	30	7
<hr/>		
100	30	7



# Subtracting



Choose a method you are unfamiliar with to solve these sums.

1.  $97 - 42$
2.  $183 - 55$
3.  $188 - 59$
4.  $394 - 137$
5.  $73 - 29$

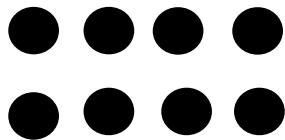




# Multiplying



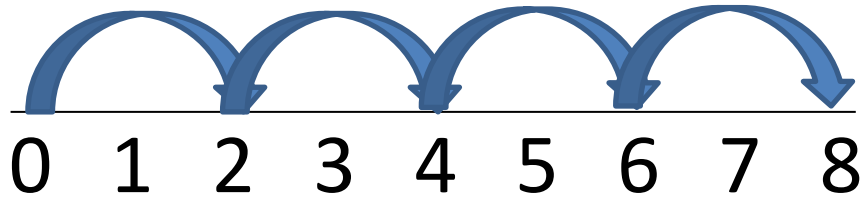
$$2 \times 4 =$$



$$4 \times 2 \text{ or } 4 + 4$$

Or repeated addition:

$$2 + 2 + 2 + 2$$

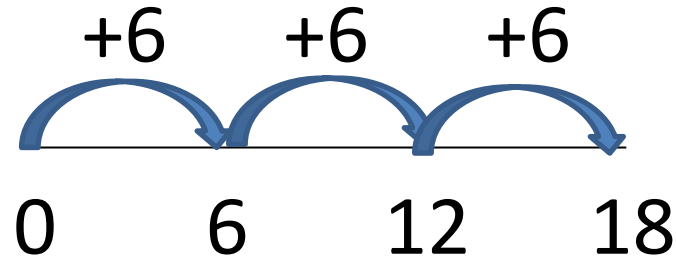




# Multiplying



$$6 \times 3$$



$$35 \times 2 = 70$$

x	30	5	
2	60	10	= 70



# Multiplying



$$128 \times 7 = 96$$

X	100	20	8	=
7	700	140	56	896

This method is extended to multiplying a 3 digit number by a single digit



# Multiplying



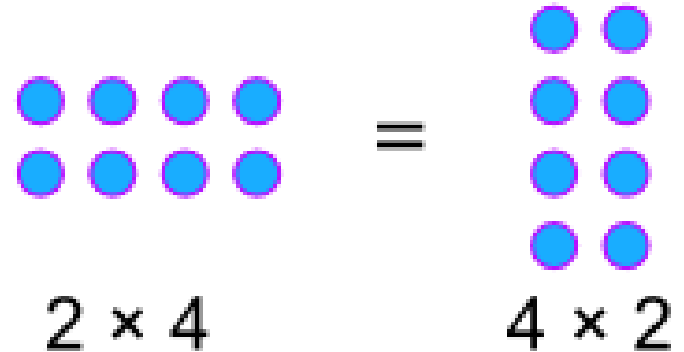
Choose a method you are unfamiliar with to solve these calculations.

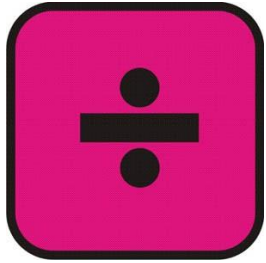
1.  $89 \times 5$

2.  $274 \times 8$

3.  $285 \times 4$

4.  $317 \times 7$





# Division

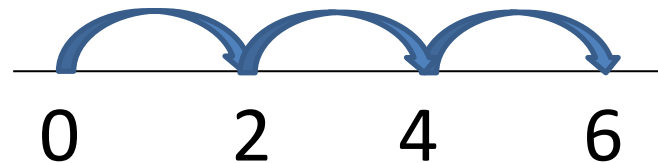


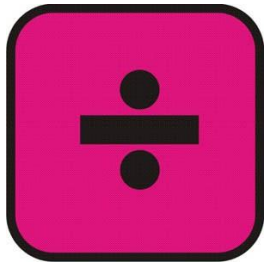
$$6 \div 2 = 3$$

**Sharing** – 6 sweets are shared between 2 people.  
How many do they have each?



**Grouping** – There are 6 sweets. How many people can have 2 each? (How many 2's make 6?)

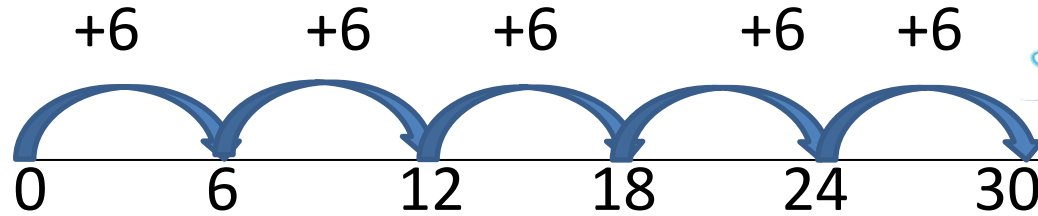




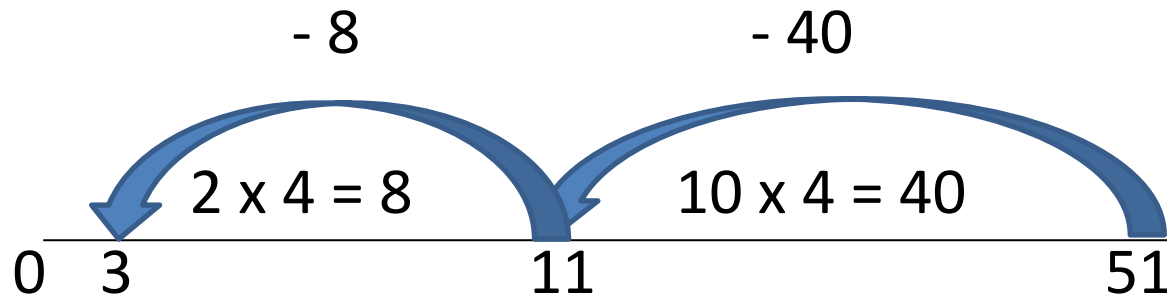
# Division



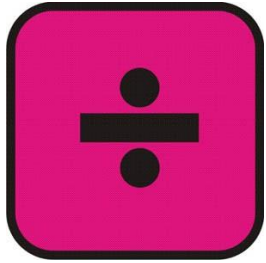
$$30 \div 6 = 5$$



$$51 \div 4 = 12 \text{ r } 3$$







# Division



Choose a method you are unfamiliar with to solve these calculations.

1.  $35 \div 5$

2.  $67 \div 8$

3.  $270 \div 3$

4.  $348 \div 4$





# Mathematical vocabulary

**+ Addition +**

plus  
total  
increase  
more  
together  
add  
and  
sum

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**- Subtraction -**

fewer  
difference between  
minus  
decrease  
take from  
reduce  
take away

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**× Multiplication ×**

times table  
groups of  
multiply  
lots of  
product  
times  
multiplied by

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**÷ Division ÷**

share equally  
divisible by  
divide into  
divide  
share  
group  
divided by

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# What can you do at home

*Talk about maths - around you*

*e.g. weight of a tin, cost of the paper, change*

*Practical maths – weighing and measuring*

*Fun maths – who can make the biggest number from that car registration/ road number – 217*

*721 – biggest number using those numerals*

*adding  $2+1+7=10$*

*14 ( $2 \times 1 \times 7$ ) or doubles 434*

*Practising number bonds to 20 and beyond*

*Times tables, time, money, doubles and halves...*

Thank you for coming.

Any questions?



Please fill out a feedback form to let us know how you found this session.