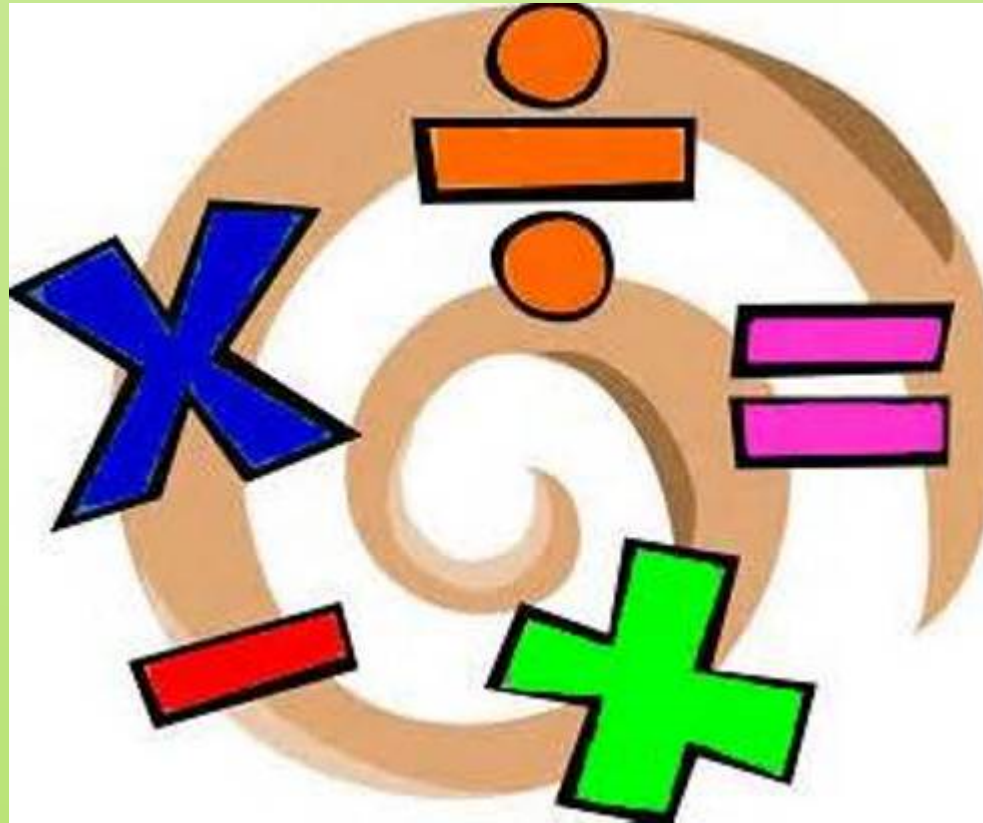



# Y6 PARENT CALCULATION WORKSHOP



# AIMS OF THE WORKSHOP

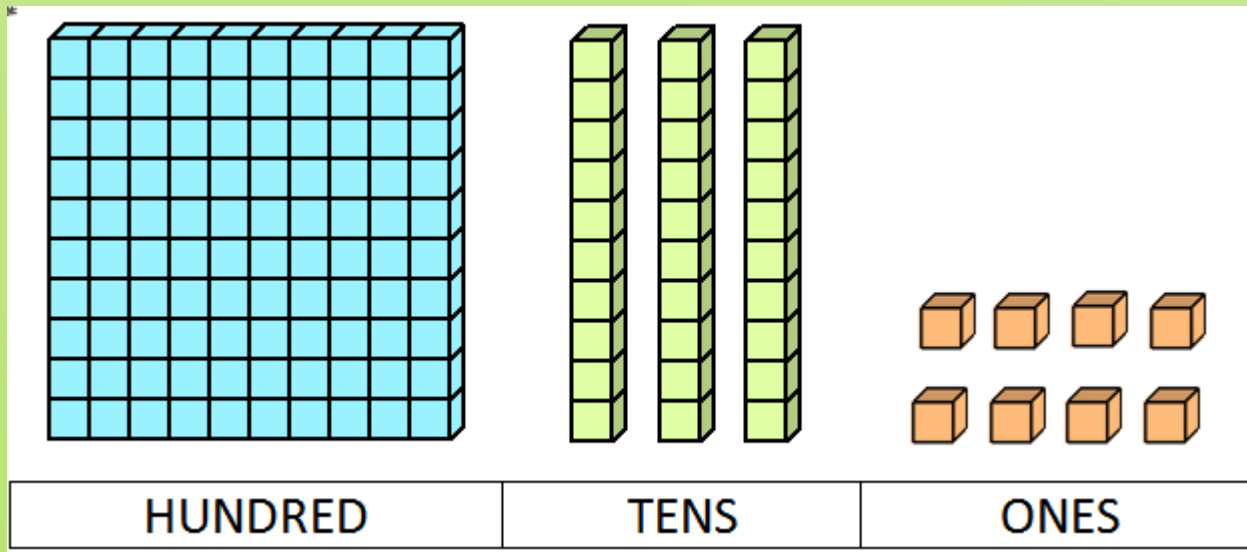
- ✓ **To demonstrate the methods of written calculation that we teach at Bush Hill Park.**
- 

# KEY AIMS OF THE NEW MATHS CURRICULUM

- ▶ **Fluent recall** of **mental maths facts** e.g. times tables, number bonds. Etc.
- ▶ To **reason** mathematically – children need to be able to **explain** the mathematical concepts with number sense; they must explain **how** they got the answer and **why** they are correct.
- ▶ **Problem solving** – applying their skills to real-life contexts.

# PLACE VALUE

It is important that children recognise the value of each digit





# ADDITION

## Addition – Upper KS2

### - Column Method

This method remains efficient when adding larger numbers and decimals. It is a quick and reliable method.

$$379 + 92 = 471$$

$$\begin{array}{r} 379 \\ + 92 \\ \hline 471 \\ \hline 11 \end{array}$$

carrying 'ten' and 'one hundred'

# ADDITION

Have a go.....

$$\begin{array}{r} 7895 \\ + 347 \\ \hline \end{array}$$

$$\begin{array}{r} 45.67 \\ + 36.98 \\ \hline \end{array}$$
A decorative graphic consisting of several parallel white lines of varying lengths, slanted upwards from left to right, located in the bottom right corner of the page.

# SUBTRACTION

## Subtraction – Lower & Upper KS2

### Column Method – Decomposition:

$$\begin{array}{r} 1 \\ 676 \\ - 39 \\ \hline 637 \end{array}$$

$$\begin{array}{r} 1 \\ 1237 \\ - 84 \\ \hline 1153 \end{array}$$

Children must keep being referred back to place value – it is 3 tens not just 3.

Borrowing 'ten' not 1



# MULTIPLICATION

## Multiplication – (Lower) & Upper KS2

Short Multiplication:

$$43 \times 6$$

$$\begin{array}{r} 43 \\ \underline{6} \times \\ 258 \\ \underline{\phantom{258}} \\ 1 \end{array}$$

Once again children have to be secure with their place value and know they are carrying 'ten' not one.

# MULTIPLICATION cont.


## Multiplication – Upper KS2

Short Multiplication for 2-digit x 2 digit:

$$56 \times 27 =$$

$$\begin{array}{r} 56 \\ 27 \times \\ \hline 392 \\ 1120 + \\ \hline 1512 \end{array}$$

When multiplying by the ten (20 in this example) children must remember to put the place holder '0' in the units column.



# DIVISION cont.

## Division – (Lower KS2) & Upper KS2

Short Division -

$$81 \div 3 =$$

$$\begin{array}{r} 27 \\ 3 \overline{) 81} \end{array}$$

Answer = 27

# DIVISION cont.

## Long division – Upper KS2

Th H T O ÷ T O

$$2379 \div 16 =$$

		<b>0</b>	<b>1</b>	<b>4</b>	<b>8</b>
1	6				
		2	3	7	9
	-	1	6	↓	↓
				7	7
		0	7	7	↓
			-	6	4
					9
			1	3	9
			-	1	2
					8
				1	1

What we expect your child to be able to do by the end of the Year:

ARITHMETIC TEST

$$24 \times 3 =$$

$$5,756 + 8,643 =$$

$$234,897 - 45,996 =$$

30 minutes for 36 questions

			6	7	8		
×			5	4			
<hr/>							

3	7	2	3	3	1		

# REASONING Papers 2 and 3 – approx. 20 questions in 40 minutes

16

Large pizzas cost £8.50 each.

Small pizzas cost £6.75 each.

Five children together buy one large pizza and three small pizzas.

They share the cost equally.

How much does each child pay?

Show  
your  
method

A large grid for showing the method to solve the problem. A small box with the pound symbol (£) is provided for the final answer.

2 marks

# REASONING Papers 2 and 3 – approx. 20 questions in 40 minutes

2

A pack of paper has 150 sheets.

4 children each take 7 sheets.

How many sheets of paper are left in the packet?

Show  
your  
method

The grid is 20 units wide and 10 units high. A smaller empty box is located in the bottom right corner of the grid, measuring 4 units wide and 2 units high.

2 marks

# REASONING

 Papers 2 and 3 – approx. 20 questions in 40 minutes

Write the four missing digits to make this **addition** correct.

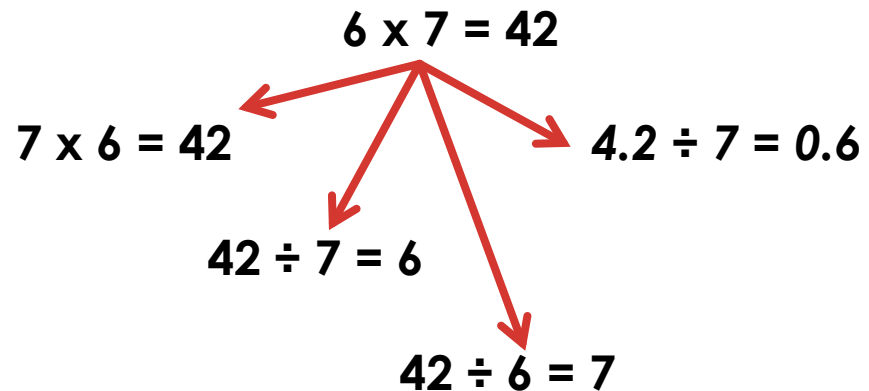
$$\begin{array}{cccc} \boxed{\phantom{0}} & 6 & \boxed{\phantom{0}} & 8 \\ + & 3 & \boxed{\phantom{0}} & \boxed{\phantom{0}} \\ \hline 9 & 0 & 1 & 9 \end{array}$$

2 marks




# KEY INSTANT RECALL FACTS

- Times tables up to 12 x 12
- Square numbers
- Prime numbers
- Fraction, decimal and percentages equivalences
- Metric conversions



# HOW YOU CAN HELP AT HOME

- ▶ **Telling the time.**
  - ▶ **The ability to estimate.**
  - ▶ **To use maths in a real life context.**
  - ▶ **Cooking.**
  - ▶ **Shopping**
  - ▶ **Practise times tables**
  - ▶ **Support with homework using methods we've shown you.**
- 

# HOW TO HELP AT HOME – USEFUL WEBSITES

- [www.conkermaths.com](http://www.conkermaths.com)
- [www.sumdogg.com](http://www.sumdogg.com) – free log in required and some paid content
- Percy Parker App (need to buy it) – for times tables
- [www.theschoolrun.com](http://www.theschoolrun.com) – parents guides and worksheets (some free)
- [www.mathsisfun.com](http://www.mathsisfun.com) – games
- [www.crickweb.co.uk](http://www.crickweb.co.uk)
- <https://uk.ixl.com>