

The Bliss Charity School

# Helping your child with maths



# September 2016

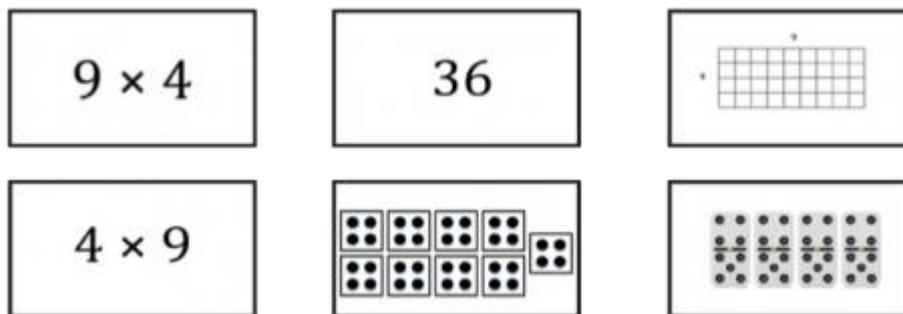
## Our Aims

It is our aim for our pupils to:

- ❖ **Become fluent in the fundamentals of mathematics**
  - ❖ **Reason mathematically**
  - ❖ **Solve problems**

### Fluency

This includes developing fluency in mental maths and written methods. Pupils should develop the ability to recall and apply knowledge rapidly and accurately. However, it is equally important for children to develop conceptual understanding. It is not enough just to memorise maths facts. For example, knowing  $4 \times 9 = 36$  should be accompanied by an understanding of the different ways this can be represented (see below). We also encourage the children to understand the relationship between multiplication and division as early as possible, e.g.  $9 \times 4 = 36$ ,  $36 \div 9 = 4$ .



$$4 = 9, 36 \div 9 = 4.$$

### Written Methods

Our calculations policy shows the different mental strategies your child needs to grasp before moving on to written calculation methods. For each written method (+, -, x and  $\div$ ), there are a number of stages before reaching the compact method. In reception and key stage one, the focus is on developing confidence and mental fluency with whole numbers. In years 3 and 4, pupils develop efficient mental and written methods with increasingly large whole numbers. By the end of year 6, pupils should be fluent in written methods for all four operations, including long multiplication and division and calculations involving decimals.

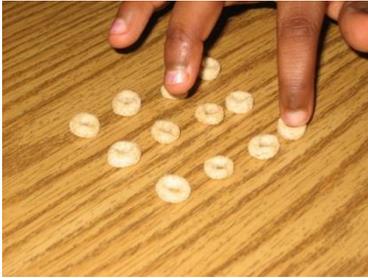
### Reasoning and Problem Solving

This year, we are focusing as a whole school on developing pupils reasoning and problem solving skills. This includes following a line of enquiry; conjecturing relationships and generalisations and using mathematical language to argue, justify and prove mathematical ideas. Last year, we held our first whole school 'Big Maths Day'. We have more Big Maths Days planned for this year.

## Ways to Help at Home

### Reception / KS1

- ❖ Play games together: board games, dice games, matching pairs, dominoes, Lego etc.
- ❖ Look out for numbers in the environment and practise recognising them, e.g. door numbers in the street; prices in shops. Work out the coins needed to pay for items and calculate / count change.
- ❖ Prepare dinner and cook / bake together. Use the language of fractions and weighing.
- ❖ Count in steps of 2, 5, and 10.
- ❖ Practise number bonds and times tables facts several times each week (Year One onwards).
- ❖ Use items around the home to make arrays for multiplication and division facts:



$$\begin{aligned} & 3 \text{ rows of } 4 \\ & 4 + 4 + 4 = 12 \\ & 3 \times 4 = 12 \\ & 12 \div 4 = 3 \\ & 12 \div 3 = 4 \end{aligned}$$

- ❖ Practise telling the time.
- ❖

## Ways to Help at Home

### KS2

- ❖ Practise rapid recall of times tables to 12 x 12 and related division facts several times each week.
- ❖ Practise number bonds (complements) to 100, e.g.  $73 + ? = 100$ .
- ❖ Discuss sports statistics together. Use sports scores and league tables to add and subtract mentally.
- ❖ Practise telling the time (digital and analogue and 24 hour clock).
- ❖ Practise recognising fractions and percentages of amounts.

## Useful Websites and Apps

- Primary Games      <http://www.primarygames.co.uk/>
- ICT Games (KS1)      <http://www.ictgames.com/resources.html>
- Woodlands Resources      [www.primaryhomeworkhelp.co.uk/maths/](http://www.primaryhomeworkhelp.co.uk/maths/)
- BBC Bitesize KS1 / KS2      <http://www.bbc.co.uk/education>
- Mathletics      [www.mathletics.co.uk](http://www.mathletics.co.uk)
- Squeebles Times Tables 2 (app)
- Bubble Pop Multiplication (app)