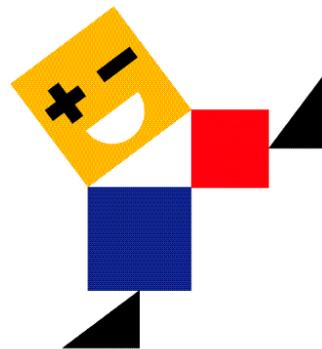


Bury C.E. Primary School

*Guidance on
Calculation
Methods for
Parents*



Introduction

At all levels learning maths is about solving problems using key processes such as:

- looking for patterns and relationships between numbers
- making sense of and checking information communicating and presenting maths using words and diagrams, for example, graphs and symbols
- reasoning and developing mathematical arguments.

Progression in maths involves using and applying these processes and skills in mathematics lessons across the whole school curriculum and in everyday life. To do this children need to understand key elements such as number, geometry, measures and statistics.

As a mathematical problem-solver, your child should learn and use skills such as:

- sorting
- ordering
- grouping
- measuring
- calculating
- comparing
- manipulating, organising and interpreting information.

Maths is an imaginative, creative way of thinking which is part of everyday living. Learning maths is also about knowing where it has come from, why it is necessary and how different cultures have contributed to the way it has developed over time. Children learn maths best through tasks where they have to make choices in order to solve a problem or a puzzle. It helps them to practise skills, ideally in an enjoyable and engaging way, supporting the development of understanding as well as their confidence and their competence.

For younger children playing and talking about games together will really encourage their mathematical development and support their learning in school. All activities you do which are seen as a puzzle, a game or as a 'finding out' process will enhance your child's confidence to play with numbers and help them be more competent puzzlers and problem-solvers. Encouraging them to play with numbers and develop a range of mental calculation strategies will also help build their confidence and competence.

As well as playing and discussing games, older children need to practice and consolidate skills such as mental arithmetic, solving equations, working out angles and calculating an average. These skills are necessary for solving the 'bigger' problems they will encounter as their mathematics develops. You can also encourage your child to engage with maths in the media, looking at how numbers and graphs are used to support arguments and encouraging them to question the reasonableness of what they are presented with. They may want to investigate further by searching on the internet, for example. Many parents will find the way maths is taught is very different from their own experience. If there are aspects of maths you would like to know more about, talk to your child's teacher.

The Purpose of this Booklet

This booklet has been written in order to help you understand how the four rules of addition, subtraction, multiplication and division are taught in our school and to give you some ideas of how to help your child with their work.

Suggested Activities

One of the most valuable things you can do with your child is talk to them about mathematics, when out shopping, playing games involving numbers, cooking etc. This may include:

1. Sing number rhymes and songs such as:

'One, two, buckle my shoe'

'One two three four five, once I caught a fish alive'

'Ten green bottles'

'There were ten in the bed'

2. Talk about:

- how many knives and forks you will need to set the table
- how many people are in the queue at the supermarket check-out
- which glass will hold the most orange juice

3. Ask children to help with jobs:

- getting a particular number of an item at the supermarket
- pairing up socks after the washing

4. Play games like 'Snakes and Ladders' or 'Ludo' that involve taking turns and using a dice and counters to move around a board.

5. Look for numbers in books, on posters, in comics, on buses, houses, cars, and road signs.

6. Talk about the shapes of things.

7. Do jigsaws.

8. Talking about any maths work that they bring home from school.

9. Asking them to help you when you are doing things with money, or measuring or weighing. Ensuring they have the opportunity to handle money (buying things and receiving change) and encouraging them to read a range of scales; weighing scales, tape measures, temperature scales, speedometers.

10. Helping them to learn their multiplication tables:

5x and 10x tables

2x, 4x and 8x tables

3x, 6x and 12x tables

7x, 9x and 11x tables

Encouraging them to recognize the relationship between different facts will help them to learn

eg $9 \times 6 = (10 \times 6) - 6$ or 4×7 is double 2×7

11. Some children find it easier to learn their number bonds as these underpin much of the mathematical teaching that is done at school. For example, they need to understand the relationship between groups of numbers up to 10 and beyond, such as:

$$7 + 3 = 10$$

$$67 + 33 = 100$$

$$3 + 7 = 10$$

$$33 + 67 = 100$$

$$10 - 3 = 7$$

$$100 - 33 = 67$$

$$10 - 7 = 3$$

$$100 - 67 = 33$$

12. Telling the time, both digital and analogue.

Using magazines to find out when a TV programme is on and helping to set timings to record a programme

13. Looking at the price of things in catalogues or when out shopping and working out if you can afford them. Discuss sale signs eg 20% off or $\frac{1}{2}$ price sale.

Helping with Maths Homework

Homework is just one of the many ways in which you can help your child to develop confidence with mathematics. We aim to offer a range of different types of maths homework activities eg maths games, investigations or puzzles and formal written activities.

Homework will usually follow on from what has been happening in class and sometimes your child might be asked to do some preparation for the next topic to be covered in school. There will be times when your child works on their own, but they will always benefit from talking to you about how they have tackled their work.

The information in this leaflet has been adapted from advice written by the Cambridgeshire and Lancashire Numeracy Advisory Teams.

Further information and activities for your child to complete can be found on the following websites:

www.mathsnet.net which includes games and puzzles for children to play

www.coolmath-games.com

www.bbc.co.uk/schools/ the schools section of the bbc website has a whole range of fun activities for children to do on the computer. Follow the numeracy link to find activities to help children learn tables, recognize shapes and do simple calculations.

www.nrich.maths.org for games, puzzles and investigations

www.woodlands-junior.kent.sch.uk/maths

www.ictgames.com

www.lancsngfl.ac.uk

www.conkermaths.co.uk