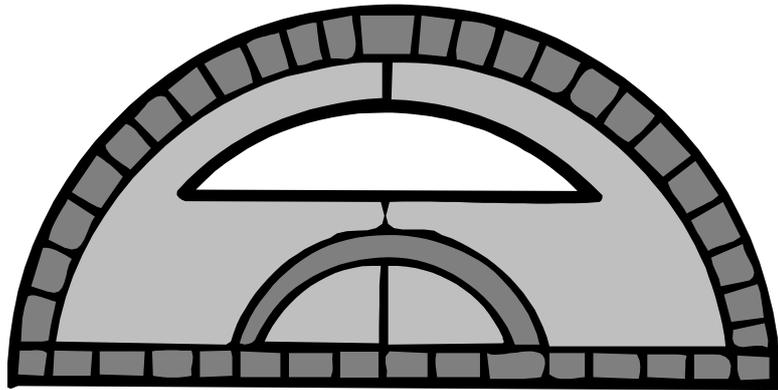


Mathematics

at

Barugh Green
Primary School



Being numerate is a key life skill

It is an essential part of coping with the practical demands of everyday living.

We aim to create confident, numerate pupils who have a repertoire of computational skills and an inclination and ability to solve number problems in a variety of situations.

The National Numeracy Strategy

The National Numeracy Strategy became effective in September 1999. Mathematics is taught everyday, following a lesson format and using a framework of objectives. The Strategy will be revised in 2007.

What do we teach?

The Framework for Teaching Mathematics identifies 5 areas:

- * numbers and the number system
- * measures, shape and space
- * handling data
- * calculations
- * solving problems

There are **objectives (targets)** within each area and for each year group. These objectives (targets) suggest what most of the children in that year group should know, understand and be able to do by the end of the year. Summaries of these objectives (targets) are available for parents on the information board.

The correct use of **mathematical vocabulary** is an important strand for each objective.

How often do we teach it?

Mathematics is taught daily.

In Key Stage 1 (infants) for about 45 - 50 minutes.

In Key Stage 2 (juniors) for about 50 - 60 minutes.

How is the lesson structured?

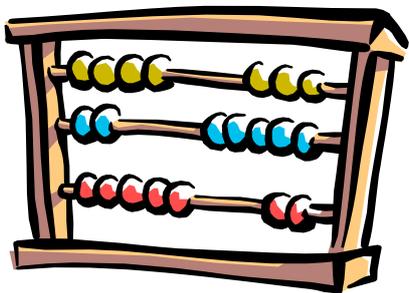
A typical 60 minutes lesson consists of

- ◆ **oral/mental** calculations (10 minutes)
- ◆ **main activity** focusing upon a learning objective and success criteria (40 minutes)
- ◆ **plenary** to summarise key ideas, sort out misunderstandings, provide feedback and evaluate learning (10 minutes)



Mental Mathematics

Mental mathematics features strongly in each lesson. A mental approach to a calculation is often the most efficient. We teach strategies and discuss their efficiency when solving problems.



We ask "How did you do that?". We encourage the rapid recall of number bonds (eg $4 + 6 = 10$, $14 + 6 = 20$, $400 + 600 = 1000$) and multiplication tables. By the end of Year 4 it is expected that pupils should be able to recall any multiplication fact (2 to 12 times multiplication tables) within 5 seconds. Multiplication tables test occur weekly in key stage 2 year groups.

Standard Written Methods

As pupils are acquiring mental strategies they are also **taught standard written methods** to solve problems. Then they have a range of strategies. These standard written methods are shown on the target leaflets for parents.

Direct Whole Class Teaching

Whole class teaching features strongly in each lesson. It is oral, interactive and with a lively pace. It allows for the direct teaching of objectives and it encourages pupils to respond, question, reinforce understanding and explain methods of carrying out a calculation.

Group/Pair/Individual Work

Pupils are grouped by ability within some of the classes. In this way activities and adult support can be tailored to the particular needs of the pupil(s).

Special Needs

For pupils who experience difficulties in learning mathematics we provide a wider range of practical activities and resources, which are used in 'real' situations to promote understanding. **For pupils who have a particular flair** we provide a greater degree of challenge through investigations and problems. Both groups of pupils receive adult support.

Calculators

Calculators are not appropriate for computations that can be done mentally. They are used mostly in Years 5 and 6 when problems become more complicated.

Computers

We use mathematical software and the internet to enhance the teaching of mathematics. Interactive whiteboards are used in the majority of lessons.

Early Mathematical Experiences

In the early years, mathematics is mostly learned through structured play, sand, water, sorting, comparing quantities, describing patterns and relationships.

Assessment for Learning

- ◆ Pupils receive feedback in relation to the learning objective and success criteria of the lesson. They are given time to act on the feedback
- ◆ They are taught to assess their own and their peers work
- ◆ They are provided with guidance on how to improve and reach their targets
- ◆ They are made aware of the required standards
- ◆ They are assessed using the Key Objectives in the National Numeracy Strategy in each year group
- ◆ Statutory assessment (SATs) takes place in Year 2 and Year 6
- ◆ Non statutory assessment (optional SATs) takes place in Years 3 to 5

How can parents help?

An active partnership with parents is encouraged. We provide leaflets for parents which summarise the key objectives (targets) for each year group, laminated leaflets showing what is taught in key areas (e.g. fractions) from Reception to Year 6 and a video (for hire free) showing maths activities around school. These items can be found in the entrance area to school

We encourage parents to:

- ◆ explore maths in every day situations (eg shopping, baking, telling the time)
- ◆ support the learning of number bonds and times tables
- ◆ be involved with homework and aid understanding, where necessary
- ◆ play maths games (eg snakes and ladders, dominoes)

