

THE NATIONAL NUMERACY STRATEGY

Why the Numeracy Strategy?

The National Numeracy Strategy is the result of several years of analysis and investigation into how to improve mathematics standards for pupils in primary schools. Much evidence has suggested that children in English schools are not as successful in basic numeracy skills as their counterparts in Europe and the Far East. The Government is committed to improving these standards and has set a target of 75% of all children achieving level 4 in their National Curriculum tests, by the year 2002. Every primary school also has their own targets set for each year - some may be as high as 85% or 90%.

As well as setting targets the government has told schools how to achieve these targets. From September 1999, all schools are expected to have a daily maths (or numeracy) lesson lasting between 45 minutes and one hour. What is taught in each lesson has been decided by the government and is set out in the National Numeracy Strategy document. The format of the lesson - how much direct teaching, how much children working independently etc - has also been laid down by the government.

What is numeracy?

This can be summarised in **TEN STEPS TO NUMERACY**.

A child who is proficient in numeracy should:

1. be confident with numbers (counting, reading and writing numbers up to millions, decimals etc) and know where numbers fit into the number system.
2. know by heart their tables, number bonds (addition and subtraction of single figures) and the doubles and halves of simple numbers.
3. use the above knowledge to work out harder calculations mentally.
4. use the above knowledge to calculate accurately with pencil and paper methods.
5. use the above knowledge for quickly checking (mentally) that an answer is sensible.
6. use the above knowledge to recognise when to use a calculator and to estimate the approximate size of an answer.
7. recognise what operations (add, subtract, multiply, divide) to carry out to achieve the correct answer.
8. be confident in explaining what they are doing and why they are doing it in that particular way.
9. be confident in estimating and measuring a range of units of measurement, in length, mass, volume etc.
10. be confident in interpreting numbers presented in tables, charts and graphs.

What is the daily Numeracy lesson?

The lesson is divided into three main parts:

1. Mental arithmetic

The whole class spends about 10 minutes on mental arithmetic skills. This is unlikely to be the 'daily ten' that many adults might remember - many new and interesting ways of making this activity lively and interesting have been introduced e.g. the children may have number cards or whiteboards to hold up the answers rather than write them down on paper. The emphasis is also on how we work out answers in our heads - which is very different from the way we do them on paper.

2. Main teaching activity

This will usually take between 30 and 40 minutes. During this time the teacher will introduce a new topic, or consolidate previous work. It is likely that the teacher will begin with the whole class, but children will also have the opportunity to work in groups and individually. A crucial part of this activity is that the teacher makes clear to the children what is to be done, how long they have and how they are to present it.

3. Plenary

The plenary is an important part of the lesson and takes about 10 minutes. During this time the teacher brings the class back together and discusses the maths that the children have been working on. This can be done in a variety of ways; for example, a group may explain to the whole class what they have been doing, links to other work or subjects may be made, key facts or ideas to be remembered identified, pupils could self mark a written exercise, or the teacher may set homework based on the lesson.

What maths will children be doing in the Numeracy Hour?

Each year group from reception to year 6 will follow a programme of work; each year building on the work of the previous year. The maths is divided into 5 areas or strands. These strands are:

1. Numbers and the number system

including counting, reading and writing numbers, negative numbers, place value and the importance of the decimal point, fractions, decimals and percentages.

2. Calculating

including mental arithmetic, the four rules on paper and using a calculator for more complex calculations.

3. Problem solving

including making decisions on what calculation to make, solving real life problems - money problems etc.

4. Shape, space and measures

including measuring length, area, volume, mass, angle, and studying the properties of 2D and 3D shapes.

5. Handling data

including collecting information to present in the forms of charts and graphs and interpreting numerical data.