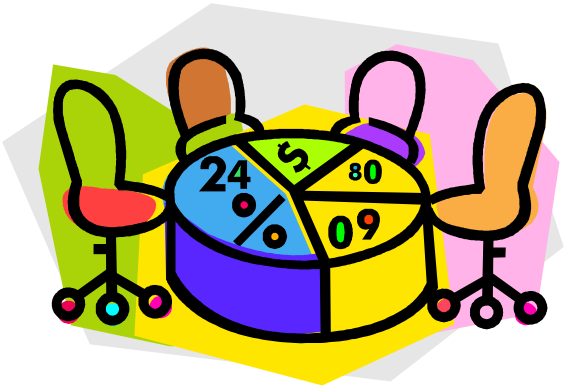
POLICY FOR MATHEMATICS

Mathematics equips pupils with a uniquely powerful set of tools to understand and change the world. These tools include logical reasoning, problem solving skills and the ability to think in abstract ways.

Mathematics is important in everyday life. It is our aim to ensure that children develop a healthy and enthusiastic attitude towards mathematics that will stay with them.

This policy statement reflects the values and philosophy of the school in relation to Mathematics. It provides guidance to be read in conjunction with National Curriculum guidelines, Foundation Stage Curriculum guidance and the New Mathematical Framework.



MAIN AIMS

- Provide pupils with a broad and balanced mathematics curriculum which fulfils the requirements of the National Curriculum for the Foundation Stage, Key Stage 1 and Key Stage 2 and follows the New Mathematical Framework.
- Develop individuals who are mathematically literate, inquisitive, enquiring and confident.
- Provide a stimulating environment and adequate resources so that pupils can develop and apply their mathematical skills to their full potential.

SPECIFIC AIMS

In Key Stage 1 pupils should:

- develop their ability to recognise, describe, draw, compare and sort different shapes and use the related vocabulary. Teaching should also involve using a range of measures to describe and compare different quantities such as length, mass, capacity/volume, time and money.

By the end of year 2, pupils should know the number bonds to 20 and be precise in using and understanding place value.

In Lower Key Stage 2 pupils should:

- develop their ability to solve a range of problems, including using simple fractions and decimal place value. Teaching should also ensure that pupils draw with increasing accuracy and develop mathematical reasoning so they can analyse shapes and their properties, and confidently describe the relationships between them. It should ensure that they can use measuring instruments with accuracy and make connections between measure and number.

By the end of year 4, pupils should have memorised their multiplication tables up to and including the 12 multiplication table and show precision and fluency in their work.

In Upper Key Stage 2 pupils should:

- develop their ability to solve a wider range of problems, including increasingly complex properties of numbers and arithmetic, and problems demanding efficient written and mental methods of calculation. With this foundation in arithmetic, pupils are introduced to the language of algebra as a means for solving a variety of problems. Teaching in geometry and measures should consolidate and extend knowledge developed in number. Teaching should also ensure that pupils classify shapes with increasingly complex geometric properties and that they learn the vocabulary they need to describe them.

By the end of year 6, pupils should be fluent in written methods for all four operations, including long multiplication and division, and in working with fractions, decimals and percentages.

Pupils should read, spell and pronounce mathematical vocabulary correctly.

ORGANISATION AND PLANNING

Mathematics is a core subject in the National Curriculum therefore pupils are provided with a variety of opportunities to develop and extend their mathematical skills in and across each phase of their education.

The New National Curriculum has been adopted as a framework for planning and teaching in conjunction with the Rising Stars Planning Framework. The strategy is introduced in the Foundation Stage with daily lessons becoming more structured as the children move into Key Stage 1.

The teaching of Mathematics at Beckstone Primary School takes a variety of forms according to the age and ability of the children and to the aspect of mathematics being taught. It provides opportunities for:

- Group work – often of similar ability where there can be a high level of interaction between Teacher and children.
- Paired work.
- Whole class teaching – particularly for introducing and review of work.
- Individual work – which takes account of particular needs.
- Key Stage 2 pupils are often streamed for maths work.

Pupils engage in:

- The development of mental strategies.
- Practical work including
  - Play, structured by the selection of materials provided.
  - ICT & Interactive Whiteboard activities.
- Written work.
- Investigative work.
- Problem solving.
- Mathematical discussion.
- Consolidation of basic skills and number facts.
- Playing mathematical games.

Achievements are assessed and reviewed on a weekly basis and at the end of every half term using the Assertive Mentoring Assessments.

We recognise the importance of establishing a secure foundation in mental calculations and recall of number facts before standard written methods are introduced.

As part of the planning process we highlight the vocabulary to be used in order to help familiarise children with correct terminology and when and how to use it appropriately.

Mathematics contributes to many subjects and it is important the children are given opportunities to apply and use Mathematics in real contexts. We endeavour at all times to set work that is challenging, motivating and encourages the pupils to talk about what they are doing.

Our weekly planning ensures a balance of coverage of the National Curriculum Programmes of Study, Foundation Stage

Guidance.. Teachers' specific plans for differentiation according to needs are shown in their short term planning.

PROGRESSION AND CONTINUITY

The Rising Stars Primary Mathematics Planning Framework provides a clear, detailed framework which ensures progression and continuity.

Weekly plans are drawn up by individual teachers following the planning framework. These are monitored and supported by the subject leaders.

ASSESSMENT

Teachers integrate formative assessment into their everyday teaching to inform them whether a child needs further practice or extension teaching and whether he/she has understood the concept.

A weekly basic skills test is implemented along with a half termly levelled assessment. Each class also completes a times tables test and a mental maths assessment on a weekly basis. Other forms of assessment may take the form of teacher observation, written work or oral explanation during an activity.

At present we use Scholar Pack to record all summative assessments on a half termly basis.

Records of achievement are kept in individual books and files.

ROLE OF THE SUBJECT LEADERS

- Providing school based INSET.
- Auditing, purchasing and co-ordinating resources and managing the maths budget.
- Advice to staff/parents.
- Annual mathematics audit and action plan.
- Lesson and work sampling.

EQUAL OPPORTUNITIES.

Teachers set high expectations and provide opportunities for all pupils to achieve, including girls and boys, pupils with special educational needs, pupils with disabilities, pupils from all social and cultural backgrounds and gifted children.

Teachers are aware that pupils bring to school different experiences, interests and strengths which will influence the way in which they learn.

Teachers aim to plan their teaching and learning so that all pupils can take part in lessons fully and effectively.

Teachers aim to provide equality of opportunity through teaching approaches,

SEN PROVISION

See policy on SEN.

RESOURCES

These are kept in classrooms and in the central stock cupboards. An inventory of equipment and resources is supplied to each teacher and a copy is kept in the cupboards.

INFORMING PARENTS

It is the Schools aim to involve parents directly in the life of the school and thus in the development of Mathematics. Parents are informed from the Curriculum Evening which takes place in September about the importance of Numeracy. Parents meetings are held throughout the child's time in school to share policy and to explain how parents may best support the work done in class along with individual targets tailored to their child. Parents are provided with practical example sheets e.g. homework sheets. Easily understood booklets reinforce the message of consolidating basic skills and number facts through practical activities and games.

SATs results are published in accordance with Government legislation.

Other policy statements to consider in conjunction with this document:

SEN; Homework; Equal Opportunities; Staff Development; Subject Leaders; Assessment & Recording Policy.

This is a working document which will be reviewed annually and any necessary amendments made by the subject leaders in consultation with the Staff and Governors as set out in the development plan.

BECKSTONE PRIMARY

Mathematics Policy

Sept '14