



Buckshaw Primary School

Policy for Mathematics

Document Purpose

This document reflects the values and philosophy of Buckshaw Primary School in relation to the teaching and learning of Mathematics. It provides a framework, within which teaching and non-teaching staff work, and gives guidance on planning, teaching and assessment.

The policy should be read in conjunction with the *2014 National Curriculum for Mathematics and the Revised Statutory Framework for the EYFS (2012) and the Development Matters EYFS Framework*, which has been adopted by the school. This should enable teachers to design a programme of activities that is responsive to their own and children's skills and needs in Mathematics at that particular time.

Audience

This document relates to children in Key Stages 1 and 2. The children in the Nursery and Reception Years follow the Early Learning Goals for Mathematical Development which can be found in the school's Policy for the Foundation Stage.

This policy is intended for all teaching staff and staff with classroom responsibilities, the School Governors, parents, inspection teams and LEA Advisers.

This policy document, after presentation to, and agreement by the staff and Governing Body is distributed to all teaching and non-teaching staff and the School Governors. Such distribution ensures the accessibility of the document to visiting teachers, for example Outreach/Support Staff, and to parents. Extra copies are available from the Mathematics Co-ordinator.

Philosophy

Mathematics is a tool for everyday life. It is a whole network of concepts and relationships which provide a way of viewing and making sense of the world. It is used to analyse and communicate information and ideas and to tackle a range of practical tasks and real life problems. It also provides the materials and means for creating new imaginative worlds to explore.

Aims

Mathematics helps children to make sense of the world around them through developing their ability to calculate, to reason and to solve problems. It enables children to understand and appreciate relationships and pattern in both number and space in their everyday lives. Through their growing knowledge and understanding, children learn to appreciate the contribution made by many cultures to the development and application of mathematics.



At Buckshaw Primary School we aim to:

- develop a positive attitude to mathematics as an interesting and attractive subject in which all children gain some success and pleasure;
- develop mathematical understanding through systematic direct teaching of appropriate learning objectives;
- encourage the effective use of mathematics as a tool in a wide range of activities within school and, subsequently, adult life;
- develop an ability in the children to express themselves fluently, to talk about the subject with assurance, using correct mathematical language and vocabulary;
- develop an appreciation of relationships within mathematics;
- develop ability to think clearly and logically with independence of thought and flexibility of mind;
- develop an appreciation of creative aspects of mathematics and awareness of its aesthetic appeal;
- develop mathematical skills and knowledge and quick recall of basic facts.

SCHEME OF WORK

Our school scheme of work is a working document and as such is composed of ongoing plans produced on a week-by-week basis. This is developed from the Lancashire Maths Team guidance.

CROSS-CURRICULAR ISSUES

Throughout the whole curriculum opportunities exist to extend and promote mathematics. Teachers seek to take advantage of all opportunities.

ICT AND MATHEMATICS

Teachers are aware of the potential of ICT for developing and extending mathematical learning and provide opportunities to use ICT in mathematics as and when appropriate.

TEACHERS' PLANNING AND ORGANISATION

Each class teacher is responsible for the mathematics in their class in consultation with and with guidance from the mathematics subject leader.

The approach to the teaching of mathematics within the school is based on three key principles.

A mathematics lesson every day

- A clear focus on interactive investigative and oral work alongside direct, instructional with the whole class and group
- An emphasis on mathematical fluency, reasoning and problem solving.



Each class organises a daily lesson of 60 minutes for mathematics. Mathematical development is taught in a holistic way wherever possible at the Foundation Stage.

Lessons are planned using a common planning format and are monitored by the mathematics subject leader. Key Stage 1 and 2 teachers use Lancashire guidance when planning lessons. Teachers of the Reception classes base their teaching on objectives in the Framework for Reception, this ensures that they are working towards the Early Learning Goals for Mathematical Development.

DIFFERENTIATION

Differentiation should:

- Allow children to reach their highest potential
- Not pre determine achievement
- Promote independent learning

Differentiation should be incorporated into all mathematics lessons in response to pupils' needs and can be done in various ways.

- Stepped/Supported activities which allow access to activities for the less able pupils
- Activities which are open-ended activities/investigations where differentiation is through outcome and depth of understanding
- Resourcing which provides a variety of resources depending on abilities e.g. counters, cubes, 100 squares, number lines, mirrors and visual representations
- Grouping according to ability so that the groups can be given difference tasks when appropriate

ASSESSMENT

Assessment has two main purposes:

- assessment of learning (also known as summative assessment);
- Assessment for learning (also known as formative assessment).

Assessment of Learning (AoL) – summative assessment

Assessment of learning is any assessment that summarises where learners are at a given point in time – it provides a snapshot of what has been learned. Within Buckshaw Primary School AoL is used appropriately, e.g. to provide a Teacher Assessment level and grade at the end of KS1.

Assessment for Learning (AfL) – formative assessment

“Assessment for learning is the process of seeking and interpreting evidence for use by learners and their teachers to decide where the learners are in their learning, where they need to get to and how best to get there.”



At Buckshaw Primary School we recognise that AfL lies at the heart of promoting learning and in raising standards of attainment. We further recognise that effective AfL depends crucially on actually using the information gained.

The school supports teacher assessment through the use of the Mathematics Progression National Curriculum LCC (2014) documentation. This documentation sets out a progression of learning for individual strands of the National Curriculum against age related expectations.

The assessment procedures within our school encompass:

- Making ongoing assessments and responding appropriately to pupils during 'day-to-day' teaching. These 'immediate' responses are mainly verbal and are not normally recorded;
- Using knowledge of pupils drawn from ongoing pupil tracking records and the progression documents to inform 'prior learning' at the beginning of each unit of work to guide our planning and teaching;
- Adjusting planning and teaching within units in response to pupils' performance;
- Use of ongoing teacher assessment and key skills grids in order to identify gaps in attainment on a half termly basis and at the end of each full term using this information to 'sub level' a child's attainment using the entering, developing, secure and greater depth judgements;
- Use of information gained from statutory and optional tests. Analysis is done at both a quantitative and qualitative level. Information gained is used to set focused curricular targets (what to teach) and also to determine which strategies or methods are particularly effective in respect of specific areas of mathematics (the how and why).

EQUAL OPPORTUNITIES

We incorporate mathematics into a wide range of cross-curricular subjects and we seek to take advantage of multi-cultural aspects of mathematics.

All teaching and non-teaching staff at Buckshaw Primary School are responsible for ensuring that all pupils, irrespective of gender, ability, ethnic origin and social circumstances, have access to the whole curriculum, and the opportunity to make the greatest progress possible in all areas of the curriculum, while at our school.

SPECIAL EDUCATIONAL NEEDS

Where applicable children's IEPs incorporate suitable objectives from the PIVATS/Foundation Stage Curriculum guidance/National curriculum and teachers keep those objectives in mind when planning work.

When additional support staff are available to support groups or individual children they work collaboratively with the class teacher. Have knowledge access to IEPs feedback given to teacher via feedback sheet or note book.



RECORDS OF PUPILS WORK

There are occasions when it is both quick and convenient to carry out written calculations. It is also important to record aspects of mathematical investigations. Children are taught a variety of methods for recording their work and they are encouraged and helped to use the appropriate and efficient method of recording.

Children are encouraged to use mental strategies before resorting to a written algorithm.

Exercise Books for Recording

It is school policy that the following pattern is used

- KS1 plain exercise books/ 1cm squares
- Year 3 1cm squares
- Year 4 1cm squares-gradual move to 7mm squares when individual children are ready
- Year 5/6 7mm squares

All children are encouraged to work tidily and neatly when recording their work.

MARKING

See Marking Policy

ASSESSMENT AND RECORD-KEEPING

See Assessment Policy

REPORTING TO PARENTS

Reports are completed before the end of the summer term and parents are given opportunity to discuss their child's progress on two separate occasions.

PARENTAL INVOLVEMENT

Parents are invited into school twice yearly to discuss their children's work. When significant changes have been/are made to the mathematics curriculum, parents are invited to a meeting or sent information via the newsletter. Parents are welcomed into school to work alongside teachers in the daily mathematics lesson. Year group mathematics support booklets for parents are sent home each half- term.

MONITORING AND EVALUATION

The mathematics subject leader is released from their classroom in order to work alongside other teachers. This time is used to monitor and evaluate the quality and standards of mathematics throughout the school and enables the co-ordinator to support teachers in their own classrooms.



Opportunities for teachers to review the scheme, policy and published materials are given on a regular basis during staff meetings.

STAFFING AND RESOURCES

Practical Resources

All teachers are encouraged to use appropriate practical resources to follow the CPA method and support children's understanding and learning. Teachers have their own base ten resources and additional resources are clearly organised and labelled in the Maths resources cupboard in Year 6 middle area.

THE GOVERNING BODY

We have identified a Maths governor. The Maths governor visits the school termly to talk with teachers and when possible observes some daily mathematics lessons.

The Maths governor reports back to the full governing body on a regular basis.

HOMEWORK

See Homework Policy

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