

Buckshaw Primary School



Maths Policy September 2021

*At Buckshaw we aim to prepare our children for their future
by raising aspirations and developing resilience within a
happy, safe and caring environment*

Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary in most forms of employment. A high-quality mathematics education, therefore, provides a foundation for understanding the world, the ability to reason mathematically and a sense of enjoyment and curiosity about the subject. Mathematics is a proficiency which involves confidence and competence with numbers and measures.

It requires an understanding of the number system, a repertoire of computational skills and an ability to solve number problems in a variety of ways in which information is gathered by counting and measuring and is presented in graphs, diagrams, charts and tables. Mathematics gives children a way of coming to terms with their environment.

Practical tasks and real-life problems can be approached from a mathematical point of view. Mathematics provides children with imaginative areas of exploration and study and gives them the materials upon which to exercise their mathematical skills. These skills are a necessary tool of everyday life. Mathematics should help children to develop an appreciation of, and enjoyment in, the subject itself; as well as a realisation of its role in other curriculum areas

Aims and Objectives

In Maths at Buckshaw Primary School we aim to give all children:

Confidence, understanding and enjoyment in mathematics; awareness of relationship and pattern, and how these can bring about a clearer understanding of a situation;

An appreciation of mathematics as a means of communication through which they can analyse information and ideas;

The ability to work systematically where the task requires a careful accurate approach, as well as the ability to show imagination, initiative and flexibility when appropriate;

Independence of thought and action as well as the ability to cooperate within a group;

Problem solving skills and strategies;

The ability to use mathematics effectively as a tool in a wide variety of situations;

Sensible use of factual recall, mental and written methods, calculators, micro-technology and other mathematical aids.

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 in EYFS base their teaching on the Development Matters Framework (2021), this ensures that they are working towards the Early Learning Goals for Mathematical Development in Number and shape and space.

The curriculum

The National Curriculum for mathematics aims to ensure that all children:

- become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that children develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions

We expect all children to know the multiplication tables by the end of Year 4.

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 should:

- Allow children to reach their highest potential.
- Not predetermine 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, visual representations
- Grouping according to ability so that the groups can be given different tasks when appropriate.
- 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 methods.

Resources

The Maths Subject Leader has responsibility for monitoring the way in which resources are stored and managed. All teachers are encouraged to use appropriate practical resources to follow the CPA method and support children's understanding and learning. Children have access to Maths Tool boxes and additional resources are clearly organised and labelled in the Maths resources cupboard.

Inclusion

At Buckshaw Primary School we aim to provide a broad and balanced education to all pupils. Quality First Teaching is considered an entitlement for all pupils. Effective pupil tracking enables identification of pupils who may benefit from early 'intervention' at an appropriate level, i.e. Wave 2 or Wave 3.

We also recognise, and aim to make provision for, pupils who have a particular ability in mathematics.

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.

Assessment, Recording and Reporting

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.

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.”

Assessment Reform Group, 2002

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 Lancashire Learning and Progression Steps. These documents set out a progression of learning for individual strands of the National Curriculum towards end of year 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 document 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 the Assessment questions within the Lancashire Interactive Planning tool (National Curriculum 2014) to check learning against the end of year objectives. If necessary future planning is adapted in response to assessment outcomes;

Use of ongoing teacher assessment in order to identify gaps in attainment and at the end of each full term using this information to judge each child's attainment against year group expectations;

Use of information gained from statutory and internal school tests. Analysis is done at both a quantitative and qualitative level.

Information gained is used to identify the group's and individual's strengths and areas for improvement and also to determine which strategies or methods are particularly effective in respect of specific areas of mathematics (the how and why).

Teachers meet every term to moderate each other's assessments in Maths. During moderation, teachers exchange samples of the children's independent work and moderate each other's judgements. This ensures consistency in judgements across the school.

Monitoring

Governors monitor coverage of the Maths Curriculum and compliance with other statutory requirements through:

- Reports from the STEM Team.
- Samples of children's work scrutiny at Curriculum Committee meetings.
- Data Analysis reports from Assessment Lead.

The Maths Subject leader and Curriculum leader monitor the way the subject is taught throughout the school by:

- Lesson observations
- Regular planning scrutinies.
- Learning walks.
- Pupil interviews
- Book scrutiny.

Legislation and guidance

This policy reflects the requirements of the [National Curriculum programmes of study](#) for Maths, which all maintained schools in England must teach.

It also reflects requirements for inclusion and equality as set out in the [Special Educational Needs and Disability Code of Practice 2014](#) and [Equality Act 2010](#), and refers to curriculum-related expectations of governing boards set out in the Department for Education's [Governance Handbook](#).

In addition, this policy acknowledges the requirements for promoting the learning and development of children set out in the [Early Years Foundation Stage \(EYFS\) statutory framework](#).

Mark Babcock (Maths Subject Leader)

Review September 2023