



Benhall Infant School and Pre-School

Maths Policy



Member of staff responsible: Mel Mason
Date of Review: Autumn 2020
Date of next review: Autumn 2022

Intent

At Benhall we intend to fuel children's passion for mathematics by giving them a sound understanding of the way mathematical concepts work and thus enabling fluency and the ability to explore, investigate and question..

The national curriculum states 'Mathematics is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas.' Therefore, the intention for mathematics is to ensure that all pupils become fluent, reason mathematically and solve problems. 'Pupils should make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems.'

At Benhall Infant School we teach our children how to make sense of the world around them by developing their ability to calculate, reason and solve problems. We want our children to recognise and understand relationships and patterns in numbers in the world around them. We expect Mathematics to be utilised as a tool beyond the daily Mathematics lessons and beyond the classroom.

At Benhall we employ a variety of teaching styles and opportunities for children to learn and develop their Mathematical skills and competencies, both individually and collaboratively. The main aim is to develop children's knowledge, understanding and skills, applying these to a variety of contexts. One of the key elements in provision throughout the school has been on developing the children's mental calculation strategies alongside developing the children's written calculation strategies, through the use of daily maths meetings.

At Benhall we expect that by the end of Y2 our children will:

- Become fluent in the fundamentals of mathematics
- Reason mathematically by following a line of enquiry, conjecturing relationships and generalisations.
- Solve problems by applying their mathematics to a variety of routine and non-routine problems.

Our children have access to high quality lessons that are both challenging and enjoyable.

- Lesson objectives are taken from the National Curriculum statutory guidelines .

- We provide our children with a variety of mathematical opportunities, which will enable them to make the connections needed to enjoy greater depth in learning within our continuous provision.
- We ensure children are confident mathematicians who are not afraid to take risks.
- We fully develop independent learners with inquisitive minds who have secure mathematical foundations and an interest in self-improvement.
- We make cross-curricular links with our termly topics, local area and current affairs. Through our Creative Curriculum, the teaching of Mathematics is extended beyond the daily Mathematics lesson. Links are made, where relevant and purposeful, between topics and Mathematics. This allows children the opportunity to apply Mathematical skills and concepts, as well as enabling children to see that Mathematics is part of everyday life

Implementation

Planning in the Foundation stage is based upon the 'Knowledge and understanding of the world' element of the Early Learning Goals, with due reference to the Early Years Foundation Stage document.

In Key Stage 1, planning is based upon the National Curriculum.

Mathematics is embedded with all other areas of learning within our whole school approach of continuous provision. It can promote learning in the core subjects, through the key skills of reading, writing, speaking and listening, investigation and the use of ICT. It can also enrich children's understanding of cross-curricular themes such as PSHCE and global dimension.

The following areas of study will be covered:

There will be opportunities for the children to work in a number of different ways according to the subject matter being covered and the planned learning objectives.

- Number and Place Value
- Addition and Subtraction
- Multiplication and Division
- Fractions
- Measurement
- Geometry - properties of shapes
- Geometry - position and direction
- Statistics
- Measurement

The way we teach implement Mathematics will be:

- Exciting, interesting and accessible to all
- Have an enquiry approach and where possible include practical, hands on activities
- Ensure there are forms of discussion so Maths comes alive and so that children begin to question information they are gathering
- Children will work in groups, individually or as a whole class

- Children's individual needs should be addressed and staff will encourage children to value each other's thoughts
- Questioning will be tailored to the needs of the children so they can develop their ideas, opinions and observations at their own pace

At Benhall lessons are planned and sequenced so that new knowledge and skills build on what has been taught before. Teachers loosely follow the White Rose Maths Hub materials, Our curriculum and careful planning supports learning. Staff also refer to the Calculation Policy when teaching formal methods, understanding that sometimes children find their own efficient methods along the way.

Our pupils are encouraged to physically represent mathematical concepts. Objects and pictures are used to demonstrate and visualise abstract ideas, alongside numbers and symbols.

Concrete - children have the opportunity to use concrete objects and manipulatives to help them understand and explain what they are doing.

Pictorial - children then build on this concrete approach by using pictorial representations, which can then be used to reason and solve problems.

Abstract - With the foundations firmly laid, children can move to an abstract approach using numbers and key concepts with confidence.

The teaching of Mathematics will include due reference to the contributions and experiences of both men and women and will contribute to the development of multi-cultural knowledge and awareness. Every effort will be made to avoid stereotypical images of people and places. In part, this will be achieved by the use of as wide a variety of resources as possible. We believe that every learner is entitled to a full range of activities designed to develop their historical abilities irrespective of their gender, age, ethnic background or ability.

Teachers are expected to keep up to date with subject knowledge and use current materials that are available in school or online. Training needs are identified as a result of whole-school monitoring and evaluation, performance management and through the school's induction process; and these needs will be reflected in the School Development Plan. The Learning Leaders for this particular subject will arrange for relevant advice and information, such as feedback from courses or CPD, to be disseminated. Where necessary, the Learning Leaders will lead or organise school-based CPD training.

Impact

The Learning leaders are responsible for monitoring the coverage of Early Learning Goals and National Curriculum objectives, and identifying areas that need to be developed.

Continuity and progression is ensured within the monitoring of the coverage of Knowledge and Skills objectives across all three year groups and with the monitoring of individual pupil's

Standards and Progress throughout the year. We consider the acquisition of historical skills is developmental throughout the school.

A child's progress is monitored in accordance with the school assessment policy. Pupil assessment will include:

- Formative assessment by teachers in weekly plans
- Termly updating of ScholarPack formative assessment markbooks for Years 1 and 2
- A termly summative assessment on ScholarPack for EYFS, Year 1 and Year 2
- Annual report to parents

Assessment should seek to raise standards of achievement in mathematic by:

- Providing teachers with information on individuals' strengths and weaknesses
- Informing the teaching and planning of future work

Our school is made up of small teams called 'learning leaders'. These are groups of 2 or 3 staff members. The learning leaders will provide professional leadership and management for their particular subject(s) and will ensure that it is managed and organised so that it meets the aims and objectives of the school. Personal development of staff and training needs will be discussed and addressed. The learning leaders will aim to meet the training needs of all staff.

The learning leaders will monitor the subject by:-

- 1) Scrutinising planning.
- 2) Scrutinising examples of children's work.
- 3) Monitoring and analysing progress data.
- 4) Observing Teaching and Learning and providing clear, constructive feedback

Inclusion

We aim to plan an appropriately differentiated programme in order that all children, including those with differing or special educational needs, achieve success at their level. Staff will encourage the children to value each other's attempts and to appreciate each other's skills.

Equal Opportunities

All teaching and non-teaching staff at Benhall Infant School are responsible for ensuring that all pupils, irrespective of gender, ability, ethnicity and social circumstances, have access to the whole curriculum, including Maths. All children from the Foundation Stage to the end of Key Stage 1 will be given opportunities to make the greatest progress possible in all areas of the curriculum, including Art, while in our school. This includes children using English as an additional language. In our selection of curriculum materials we avoid stereotyping and acknowledge cultural diversity.

Accessibility and Safeguarding Statement

This policy is written with reference to our Safeguarding Policy, in particular the Child Protection section.

We will strive to ensure that the ethos of the school is such that everyone is equally valued and treated with respect.

Pupils will be provided with opportunities to experience, understand and value diversity.

All pupils should have access to an appropriate education that gives them the opportunity to achieve their personal potential, whatever their abilities and needs might be. Benhall Infant School and Pre-School is committed to providing an outstanding safe learning environment that promotes the welfare and well-being of all children. We ensure that this policy considers those children and young people with additional medical needs such as asthma, diabetes, epilepsy and allergies etc.