

BEECHWOOD PRIMARY SCHOOL MATHEMATICS POLICY

Introduction

Beechwood Primary School is committed to the lively and engaging delivery of Mathematics across the age ranges. We aim to show the children the enjoyment in Mathematics and to foster a curiosity for the subject. This policy outlines the aims, organisation and management for the teaching and learning of mathematics at Beechwood Primary School.

Aims

Mathematics is a life skill. It is an essential element of communication, widely used in society, both in everyday situations and in the world of work.

Our aims in teaching Mathematics are that all children will:

- Ensure that all children become fluent in Mathematics, developing a conceptual understanding of different aspects of Mathematics as well as the ability to recall and apply knowledge quickly and accurately.
- Develop pupil's mathematical reasoning, with a particular focus on using mathematical vocabulary.
- Give all pupils the opportunity to regularly solve routine and non-routine problems.
- Develop positive attitudes and an enjoyment of mathematics as well as understanding the use of mathematics within daily life and the world of work.
- Develop children into resilient learners who enjoy challenge and see the value of learning from mistakes.

Curriculum Planning

Medium Term Planning

Objectives in EYFS are the Birth to Five and statutory framework document and years 1-6 are from the national curriculum. Year group colleagues meet to complete a yearly overview; this is reviewed termly based on previous assessments and the needs of the pupils.

Short term planning

In Nursery and Reception Maths planning is included in the outdoor continuous provision, indoor continuous provision and maths weekly plans. The children can access the maths area at any other point during the day. Staff in years 1-6 plan learning over a series of lessons using White Rose Hub guidance and the LEPP vocabulary document. The learning tasks are differentiated and problem solving is applied regularly.

Teaching Mathematics

In Nursery children are able to access the Maths area throughout the day where a challenge or activity is set up. There are also opportunities for Mathematical learning to take place in the outdoor area. Nursery children are given the opportunity to access a Maths focus teaching activity each week which is approximately 20 minutes long. Nursery children will continue to start mastery of number through focusing on one number (1-5) for a couple of weeks, to develop a secure understanding of these numbers. Additionally, they are starting a short daily counting sessions through interactive and fun activities such as singing.

In Reception children have a daily adult led maths taught session as well as a 10 minute counting session each day. Each week the children will access a different adult focused session. Throughout the year the children will develop a sound understanding of the numbers 1-10. Focusing on a number at a time, ensuring children have a secure understanding of all aspects of that number and looking at how that number can be represented in many different ways. For instance, the twoness of two and how two can also represent, the numeral 2, 2nd place, a 2p coin, 2 hands, feet, arms, legs, 1 more than 1, and 1 less than 3, $1 + 1 = 2$, along with many other representations.

In Reception, during child-initiated learning children are able to access the Maths areas in both Class 1 and Class 2 throughout the day where a challenge or activity is set up. There are also opportunities for Mathematical learning to take place in the outdoor area and in many of the other areas such as construction, water and sand.

The Mastering Number programme is also taught 4x a week in addition to daily maths lessons. Mathematics is taught daily in years 1-6, with focused time spent on counting at the beginning of each lesson.

The Mastering Number programme is also taught 4x a week in addition to daily maths lessons in Years 1 and 2. Arithmetic sessions are taught at least twice a week from Year 3 to Year 6. Counting and flashback sessions are taught from Year 1 to Year 6. This focuses on children's mental recall of facts as well as using efficient written methods. The children and teachers use CPA resources to help them in their learning. This encourages children to build strong Mathematical concepts alongside problem solving activities. Interventions are used for delivering Maths to small groups or individuals.

Teaching strategies

In order to provide the children with active and stimulating learning experiences, a variety of teaching and learning opportunities are adopted: -

- All children have access to a maths area in the classroom, this provides them with a range of resources that they are taught how to use and are also able to self select to help them progress in this subject area.
- Use of CPA approach to demonstrate a range of models, images and use of manipulatives. In Year 3 - Year 6, White Rose workbooks are used alongside other resources (e.g. NCETM, Nrich, I See reasoning) to ensure children see a range of CPA and different contexts.
- Use of arithmetic and mental mathematical skills are embedded in lessons.
- Opportunities to problem solve in a range of contexts are provided regularly.
- Children have regular opportunities to access mathematics in the outdoor area in EYFS and KS1.
- Children may work individually on a task, in pairs or in a small group, depending on the nature of the activity.
- Opportunities to transfer skills learnt, across contexts and across the curriculum, are used whenever possible.
- Activities are planned to encourage the full and active participation of all pupils.
- Teachers differentiate tasks throughout the lesson in order to meet the needs of all abilities.
- Teachers place a strong emphasis on correct use of mathematical language and reasoning.
- All classrooms have a maths working wall to support teaching of mathematics.
- Teachers value pupils' verbal contributions and create an ethos in which all children feel they can contribute.
- Children are encouraged to read, spell and use mathematical vocabulary.
- Children take part in daily counting activities.
- Mastering Number from reception to year 2.
- TTRS for years 3-6.

Assessment, recording and reporting

Assessment takes place at a number of levels. These assessments are used to inform teaching in a continuous cycle of planning, teaching and assessment.

Nursery and Reception staff work alongside children in provision to model, support and assess their mathematical learning. Assessment is also part of the daily teaching, where lots of verbal feedback is given to children, Wow moments of pupil initiated learning are recorded on their Tapestry journal online. Parents/carers can also add observations or comments onto Tapestry. Notes are also made by staff during focus Maths activities and these are put into a file. Evidence is then taken from both of these areas to assess the children against the Birth to Five and statutory framework objectives and children are assessed at the end of each term and this data is entered onto O track.

In Key Stage One, assessment is part of the daily teaching and learning process with a lot of verbal feedback given to the children. Where appropriate, teachers annotate next step comments to aid progression in learning. These are responded to by the pupils either practically or in green pen if written. Teachers single tick a

WALT if the child is beginning to understand that objective and use a double tick if they are achieving that WALT to the level expected for that point in the year.

In Key Stage Two, assessment is part of the daily teaching and learning process and both verbal and written feedback is given to children. The focus of the feedback is children's next steps to ensure that they are making progress. In years 3-6 children use a green pen to self-mark work, to correct errors and to respond to teacher's comments. Teachers single tick a WALT if the child is beginning to understand that objective and use a double tick if they are achieving that WALT to the level expected for that point in the year.

In years 2-6 children complete Mathematics tests at the end of each term. The end of term tests are used as a guide as to what content the children need in the following half term. The results from the end of term tests are turned into scaled scores and are used, alongside outcomes of class work, to give the children a level on o track. During each half term, children complete the White Rose block assessments linked to the units of work taught in that half term. These then support teachers to ensure planning supports the mathematical needs of the children. Arithmetic tests are completed every half term and practice tests are used within additional maths sessions through each term.

All of this assessment information is used to complete a format for the pupil progress meetings where the progress and needs of each pupil are discussed by class teachers and SLT.

Intervention programmes

Throughout the school we have different Maths intervention programmes that are planned and developed in line with the current cohorts needs. At pupil progress meetings target groups of children such as SEND, children working at or towards a greater depth level and children working towards expected level are identified. These interventions are then delivered by specific intervention teachers, HLTAs and support staff. These interventions are reviewed at each pupil progress meetings and an intervention map is developed.

Equal Opportunities

All pupils will have equal opportunity to reach their full potential across the mathematics curriculum regardless of their race, gender, cultural background, ability or physical disability.

Inclusion

The school's equal opportunities policy applies to the teaching of mathematics as to all other subjects.

Environment

It is important that the classroom environment supports both the learning and teaching of mathematics. The school aims to provide a mathematically stimulating environment through the use of Maths working walls throughout school. These focus on vocabulary, CPA, sentence stems and we are mathematicians. We also achieve this by providing a good range of resources and manipulatives for teacher and pupils to use through the use of a maths area in every classroom. Early years and KS1 outdoor maths areas are resourced to support learning in maths.

Homework

We recognise the importance of making links between home and school and encourage parental involvement with the learning of mathematics.

Homework provides opportunities for children

- to practise and consolidate their skills and knowledge,
- to share their mathematical work with their family
- to prepare for their future learning

Maths team

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