

Emmbrook Junior School



Maths Policy

Responsibility of: Curriculum and Pupil Achievement (CPA) Committee

Date of policy: July 2018

Date of review: July 2020

2014 Mission Statement

The Emmbrook Junior School community works together to further develop each child's abilities by creating a nurturing and motivating environment for learning. Each child's self-confidence will be strengthened, so they make good academic progress, whilst gaining increasing resilience and respect for the community.

Introduction

A high-quality Maths education provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of Maths, and a sense of enjoyment and curiosity about the subject (National Curriculum 2014). This policy states the principles on which the planning, implementation and evaluation of Maths in the curriculum are based. This policy will be reviewed by the staff and the governing body every 2 years. The implementation of this policy will be monitored by the subject leader and the Head Teacher.

The Nature of Maths

The Aims of Maths at Emmbrook Junior School are in line with that of the National Curriculum, which are to:

- Ensure pupils become fluent in the fundamentals of Maths through frequent and varied practice with increasingly complex problems so that pupils can recall and apply knowledge accurately
- Ensure that pupils can reason mathematically by following a line of enquiry and conjecturing relationships using mathematical language
- Ensure pupils can solve problems by applying their Maths 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
- Ensure that pupils can record their mathematical work in appropriate ways using the most suitable tools
- Ensure that pupils master key concepts appropriate for their age group
- Ensure Maths is taught using cross-curricular elements, where appropriate, which foster a high level of enthusiasm and a thirst for more knowledge and understanding, underpinned by key skills and attitudes

Teaching and Learning

Planning

Teachers in the school use the White Rose Maths Hub (WRH) long term and medium term planning. This scheme maps out all the content required for each year group into small steps, with suggested time scales.

The WRH scheme also supports daily lesson planning and resource preparation. The scheme provides exemplar materials to support fluency, reasoning and problem solving.

Teaching

Pupils are taught in class groups with a mixed ability range.

During lessons, teachers will:

- Make Learning Objectives and Success Criteria explicit
- Use a range of physical representations, pictorial representations and then abstract representations
- Use a range of practical resources to help support the teaching of new concepts including Numicon, Diennes, Cuisenaire and place value counters
- Use ongoing assessment to ensure lessons are differentiated
- Demonstrate and model methods and expectations
- Give a range of open and closed questions to challenge and support
- Effectively deploy teaching assistants to support individuals or groups

During lessons, pupils will:

- Work Independently, as a pair and as a small group
- Consolidate key skills and build on prior learning
- Give mathematical explanations using rich vocabulary
- Question and discuss mathematical ideas
- Reflect and evaluate their progress

Assessment

Teachers make assessment of pupils daily through marking and feedback. They are continuously picking up on misconceptions and ask open questions to deepen and clarify understanding. This ongoing assessment is used to adapt live teaching and inform future planning. These findings are recorded regularly on Excel progress grids so that progress over time can be evaluated.

Pupils in years 3, 4 and 5 sit optional tests (Rising Stars) on a termly basis and a standardised/scaled score is obtained. From these pupils, those that are predicted not to meet age related expectation (ARE) can be quickly identified and supported.

In Year 6, pupils sit termly Maths SATs papers (Arithmetic, Reasoning 1 and Reasoning 2). From these pupils, those that are predicted not to meet ARE can be quickly identified and supported. They will then sit official SATS tests in May of each year.

Inclusion

Through our Maths teaching, we provide learning opportunities that enable all pupils to make progress. We do this by setting suitable learning challenges and responding to each pupil's differing needs. Assessment against the National Curriculum allows us to consider each pupil's attainment and progress against expected levels. Pupil tracking must be effective and enables identification of pupils who may benefit from early 'intervention' at an appropriate level. We also recognise, and aim to make provision for, pupils who have a particular ability in Maths.

Number Facts Tests

Each week, pupils participate in a Number Facts test.

The test scheme includes:

- Number bonds to 10 and 20
- Multiplication and division facts up to 12×12
- Application of times tables and division facts including multiples of 10 and 100 and decimal numbers

A record of how the pupil is progressing with these tests can be found in the pupil's maths homework books. These tests are set out in triangles so that the relationship between multiplication and division is more visual.

Home Learning

MyMaths is a fully interactive online Maths learning tool which is used by teachers to support Maths learning both in class and at home. Pupils are set weekly homework on MyMaths in line with the homework policy and are encouraged by school to access it regularly at home to support areas of mathematical learning.

Monitoring and Review

The monitoring of the standards of pupils' work and of the quality of teaching in Maths is the responsibility of the Maths subject leader and the Senior Leadership Team. The work of the subject leader also involves supporting colleagues in the teaching of Maths, being informed about current developments in the subject and providing a strategic lead and direction for the subject in the school by writing the Maths Action Plan and updating policy. The Maths subject leader provides the Senior Leadership Team with information through reviewing weekly planning and reviewing the progress towards the targets in the School Improvement Plan.

Approved by Governing Body

Chair of Governors

Date 17.07.2018

Head Teacher

Date 17.07.2018