



Mathematics Policy

To be read in conjunction with all other policies plus: -

Accessibility Plan

Introduction

Mathematics teaches children how to make sense of the world around them through developing their ability to calculate, reason and solve problems. It enables children to understand relationships and patterns in both number and space in their everyday lives.

Vision for Maths

At Broadway, our vision for maths is creating engaged, curious and confident mathematicians who enjoy exploring new challenges, problem solving and talking about their learning in meaningful and practical ways.

Curriculum Aims

The Broadway Infant School curriculum is central to the delivery of our whole school vision that everyone will have a curriculum which:

- is broad, challenging and creative
- encourages children to learn through seeking solutions to problems and finding answers to their own questions.

In the Early Years Foundation Stage, Maths involves providing children with opportunities to develop and improve their number skills by playing, using manipulatives, experimenting, counting, recognising, writing and understanding numbers. They calculate using part whole methods and begin to use addition and subtraction and learn the relationship between them. They are taught to halve and share and to double. They are taught to see relationships between numbers to develop a sound sense of number. Shapes, space, and measures is also taught and children are given the opportunity to problem solve within all areas of Foundation Stage mathematics.

The national curriculum for mathematics aims to ensure that all pupils:

- **become fluent** in the fundamentals of mathematics, through varied and frequent practice with manipulatives, pictorial representations and abstract numerals. Students are given opportunities to solve increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately. We aim to promote confidence and competence with numbers and the number system;



- **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.

Therefore, in Broadway Infants all classrooms will provide a numerate environment where mathematical language and resources are inviting and easily available to all children.

The context of teaching:

In the Foundation Stage, children will be supported in developing their understanding of number and shape, space and measure and problem solving through whole class maths lessons, child initiated activities and small group work where they can explore, enjoy, learn, practise and talk about their increasing mathematical understanding. Children will be seen engaged in activities that promote the characteristics of learning:

- playing and exploring - children investigate and experience things, and 'have a go';
- active learning - children concentrate and keep on trying if they encounter difficulties, and enjoy achievements; and
- creating and thinking critically - children have and develop their own ideas, make links between ideas, and develop strategies for doing things.

In Key Stage 1, children will be supported in developing their understanding of number and place value, calculation, shape, space and measure, position and direction, fractions and statistics and problem solving through daily mathematics lessons which include Number Talk sessions when children will think and talk about the relationships between numbers, their parts and practice to subitise numbers perceptually and conceptually. Children will also have opportunities in Year 1 to explore their mathematical thinking and practise skills during continuous provision activities. Children will develop their knowledge, skills and understanding through;

- being encouraged to ask questions as well as answer them
- opportunities to use a wide arrange of practical resources, such as number lines, 100 squares and small apparatus to support their work.
- opportunities to use pictorial representations and written methods



- using ICT
- providing suitable learning opportunities for all children by matching the challenge of the task to the ability of the child and having opportunities for using and applying.
- A range of questioning styles
- use of classroom assistants to support children.
- opportunities to play and explore

Planning to deliver the curriculum

Planning in the Foundation Stage is based on the Statutory Framework for Early Years, the non-statutory early years outcomes document and the National Curriculum when needed. Long term mathematics planning identifies the intended learning throughout the year. Weekly plans include daily maths inputs and they must always include sufficient level of support and challenge to match the learning needs of all children, including when necessary, those working beyond the level of the Early learning Goals. Plans also allow maths to be explored through focused child led learning.

Planning in Key Stage 1

The school delivers the Mathematics National Curriculum 2014. Teachers ensure objectives are covered and progression and continuity occurs throughout the year. We follow the White Rose Maths long and medium term planning overviews which detail the sequence of learning that takes place over the year and unit block. Weekly plans include daily maths inputs and they must always include sufficient level of support and challenge to match the learning needs of all children.

Throughout the school, teachers are responsible for the content of their daily lesson planning needs. This level of autonomy allows us to maximise on teacher's professionalism and minimise on bureaucracy whenever possible.

When planning topics, teachers must ensure they build on prior learning, take into account the interests of their pupils, have high expectations and include an appropriate level of challenge.

Cross curriculum teaching

We integrate curriculum areas together so that children can build concrete links between their developing knowledge and understanding and applying skills. For example, teachers ensure that whenever possible, the application of information and communication technology, English and/or maths is embedded when teaching other foundation subjects.

Equality of opportunity

In the implementation of this policy Broadway School is committed to equality of opportunity. Equality of opportunity is about providing equality and excellence for all



in order to promote the highest possible standards of achievement. It applies to all members of the school community, pupils, staff, governors, parents/carers and community members, and to all aspects of school life, including admissions. Disabled members of the school community are also legally entitled to expect reasonable adjustments to be made to help facilitate their participation.

Assessment for Learning

All children are assessed on a day to day basis through observation, questioning, discussion and written recording. This ensures teachers have a full understanding of learning and progress.

Assessment in the Foundation Stage

In the Foundation Stage, children are regularly assessed against the developmental ages as given in the early years outcomes followed by the Early Learning Goals. Final Early Learning Goals results for each child are included in each their annual report. This information is also passed to the next class teacher during annual transition meetings.

Assessment in Key Stage 1

Learning objectives and success criteria are shared through the use of learning walls and objective stickers in books. Teacher give verbal and written feedback. As well as day to day assessment, at regular intervals, children will be assessed more formally in order to provide diagnostic information about the progress of individual children which is linked to national standards and to identify gaps in experience and to inform planning. Final attainment assessment for each child is included in each child's annual report. Attainment and progress information is also passed to the next class teacher during annual transition meetings.

Parent/Carer contribution to learning

Parent/Carer involvement is highly valued. We aim to promote their participation through invitations to school events such as 'stay and count' sessions that develop their understanding of how they can support mathematics at home. Teachers also set mathematics targets for children which they then formally share as part of parent/carers evenings. These targets also form part of the end of year school report. Children in KS1 are given maths targets as part of their homework.

Special Educational Needs and Disabilities (SEND)

Within the mathematics planning teachers provide learning opportunities that are matched to the needs of children with learning difficulties and also provide appropriate challenges for children who are high achievers. Work in mathematics takes into account the targets set for individual children in their Pupil Passports.

Monitoring

The monitoring of the standards of children's work is the combined responsibility of the Mathematics Co-ordinator, the Headteacher and Governors.



The work of the co-ordinator also involves supporting colleagues in their teaching and being informed about current developments in the curriculum area. The coordinator is given the opportunity to observe lessons and monitor teaching throughout the school. The Headteacher draws on information and advice supplied by the co-ordinator to provide a strategic lead and direction for our school. The quality of teaching in these areas is the responsibility of the Headteacher although he/she may call on the co-ordinator for advice.

This responsibility for this policy has been delegated to the Headteacher and will be reviewed at least every three years.

Signed: J Tumelty

Date: November 2020

Headteacher Jodie Tumelty

Review: November 2023