



A caring school promoting excellence through curiosity, confidence, creativity and cooperation.

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 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; a curriculum which 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 counting, recognising, writing and understanding numbers. They calculate using addition and subtraction and are taught to halve and share. 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, including through varied and frequent practice with 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.

Senior staff and governors will always check for any known changes in legislation or local requirements before applying this policy.



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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 mental and oral sessions. 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.

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 and termly mathematics planning identifies the intended learning throughout the year. Weekly plans include daily maths inputs and they must always include sufficient differentiation to match the learning needs of all children, including when necessary, those working beyond the level of the Early learning Goals. Provision 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. A medium term plan is used each half term to identify the main teaching objectives. Weekly plans list specific learning objectives and provide details of activities that are to be taught.

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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, literacy and/or numeracy 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. The 'pink and green' method is used for marking. (See the Marking Policy) Children are given opportunities to act upon their next steps.

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

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form part of the end of year school report. Children in KS1 are given maths targets as part of their homework and these are checked regularly.

Resources

Each class is a numerate environment and relevant vocabulary and concepts are displayed in each classroom. Resources are stored in the classrooms and are easily accessible to all children. Interactive whiteboards and computers are accessible in classrooms to support children in their mathematical understanding. Some larger apparatus and problem solving games are stored in the mathematics resource cupboard. Published mathematics schemes and mathematics resource books are stored in the staffroom. Co-ordinators review resource requirements on a regular basis and are encouraged to inform the Headteacher if new resources are required.

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 Individual Education Plans (IEPs). Teachers and supporting adults in the Foundation Stage and Key Stage 1 must provide supplementary experiences and information for children with sensory impairment.

Monitoring

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

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: Juliet Lambert

Date: 19th June 2017

Headteacher

Review June 2020