

Maths Policy

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Notes	



Brookside Primary School

Championing Children's Potential

Introduction

This policy outlines the teaching, organisation and management of the mathematics taught and learnt at Brookside Primary School. The school's policy for mathematics is based on the new Primary Curriculum 2014. The policy has been drawn up as a result of staff discussion and has the full agreement of the Governing Body. The implementation of this policy is the responsibility of all the teaching staff.

Vision:

We believe that mathematics is an essential everyday life skill which provides pupils with powerful ways to describe, analyse and change the world.

Aims

In addition to the overall school aims we aim to develop in all children:

- positive attitudes, fascination and excitement of discovery through the teaching and learning of mathematical concepts.
- broaden children's knowledge and understanding of how mathematics is used in the wider world.
- enable our pupils to confidently use and understand mathematical language.
- enable our children to select and use appropriate practical equipment to demonstrate their understanding.
- use mathematical thinking to solve a range of challenging problems.
- develop their reasoning skills to enable them to explain and prove mathematical concepts.

In order to achieve this staff will:

- create an engaging learning environment which encourages children's skills development.
- teach a mastery curriculum.
- provide children with regular opportunities to apply their knowledge to solve problems and reason mathematically using appropriate language.
- seek to take advantage of creating cross curricular links to enable children to practise and apply skills, knowledge and understanding acquired in maths lessons to other areas of the curriculum.

Planning

Long term and medium plans will be based on the aims set out in the new Primary Curriculum 2014.

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** with the ability to recall and apply knowledge rapidly and accurately.
- **Reason mathematically** by following a line of enquiry, **conjecturing relationships** and **generalisations**, and develop 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.

Medium term plans will outline the objectives to be taught in each area making sure links with other areas are included (see Appendix 1 for an example).

Short term plans will be completed weekly and will give clear details of learning objectives and success criteria, whole-class teaching, differentiated pupil activities, allocation of support staff, and a plenary. Calculations will be taught according to the school calculation policy.

Learning and teaching

The overall objective in teaching mathematics is to develop an understanding and love of mathematics that lasts a lifetime and evolves to meet changing demands.

Brookside teach a mastery curriculum in maths.

Teaching:

Mathematics lessons will take place on a daily basis generally lasting 45 minutes in Key Stage 1 and 50- 60 minutes in Key Stage 2. In Reception children participate in 3 mathematics carpet sessions a week and one full day of maths activities including a structured activity with a teacher. Links will also be made to mathematics within other subjects so pupils can develop and apply their mathematical skills.

Class Organisation:

Children are NOT set at Brookside and are taught in their classes.

A typical lesson:

A typical 45 – 60 minute lesson in Year 1-6 will be separated in to a 6 part lesson (if possible). These parts include:

Talk and share

New learning

Talk task

Develop learning

Independent work

Plenary

The content of each part will depend on the lesson being taught.

In Reception the EYFS puts emphasis on the development of number, counting, calculation, shape, space, and measure through a practical, experiential and play based curriculum, both inside the classroom and outside. Time, space and encouragement is given to the discovering of mathematical ideas and concepts during child initiated activities and adult lead activities. A key focus of teaching and learning in Reception at Brookside is the development of children's mathematical language and reasoning skills.

Creative Curriculum

At Brookside we deliver a topic based creative curriculum and links with maths work can be found in a wide range of topic based lessons. It is vital that children draw out mathematical experiences in a number of activities and allows them to apply their skills, knowledge and understanding in other areas. This promotes children's engagement and is an integral part of the mathematics curriculum.

Inclusion and equal opportunities

All children are provided with equal access to the maths curriculum through a mastery approach where ALL children are expected to access the curriculum for their year group unless there are exceptional circumstances.

Challenge:

Challenge is set through the provision of extension questions or activities which generally involve problem solving or reasoning.

Support:

Support will be provided where needed through the provision of appropriate resources and/or adult support.

Exceptional pupils:

In exceptional circumstances special arrangements will be made for gifted pupils e.g. taking part in an additional, teacher led, challenge session where there are more challenging problems to tackle or participation in classes with the year above.

SEND:

Teachers will ensure that pupils with a range of needs are able to access the mathematics curriculum through ensuring appropriate differentiation, provision of adequate adult support and access to resources. Additional adults are targeted to support children with English as an Additional Language (EAL) and physical disabilities e.g. a visual impairment as and when needed.

Intervention:

Where possible, focussed intervention will be provided as soon as possible after teaching. Marking will identify those children needing support.

Termly analysis of children's attainment using target tracker will identify children not achieving specific objectives. This is then used to develop a focussed intervention for the following term.

In addition, specific intervention programmes are used when appropriate for identified groups of children who would benefit from this in order to achieve age-related expectations by the end of the year.

Learning Environment

All classrooms will have a display including vocabulary appropriate to the current topic and children's work. Most maths resources will be available in all classrooms, whilst some other resources will be stored centrally.

Resources

Resources will be reviewed and purchased according to year group needs and requests to support the learning and teaching of maths. Money will be allocated according to identified needs in discussion with year group staff and key stage co-ordinators.

Information and Communication Technology (ICT)

At Brookside we recognise the power of ICT to support teaching and learning in the classroom and as such will be used in various ways to support teaching and motivate children's learning. ICT will include the use of computers, calculators, and interactive whiteboards only when it is the most efficient and effective way of meeting the lesson objective.

Assessment

Assessment will take place at three connected levels: day to day, periodic and transitional. These assessments will be used to inform teaching in a continuous cycle of planning, teaching and assessment.

- AfL (assessment for learning) is used as a daily assessment to check children's understanding, inform planning and identify progress within a lesson.
- End of unit tests.
- At the end of each term assessment will be carried out using target sheets and termly tests.
- Whole staff moderation of judgements take place throughout the school year.
- At the end of KS1 (Year 2) and KS2 (Year 6) SATs are used to inform and support teacher assessment.

Accurate information from these assessments will be entered into analysis programs to be scrutinised by SLT and the maths coordinator to assess whole school progress and attainment.

Subject leadership role

- To lead by example in their own classroom
- Draw up a yearly action plan and monitor and review its progress
- To prepare and deliver high quality CPD to all staff.
- Work with the SENCO and intervention Coordinator to ensure quality provision for all across the school.
- Attend CPD by the Local Authority.
- Attend development group meetings.
- Monitor maths provision through scrutiny of planning, teaching and assessment trawls and observations in accordance with the Curriculum Monitoring document.
- Analyse annual data graph packs
- Track progress of Gifted and Talented and ensure quality provision
- Coach and mentor colleagues.
- Attend SLT.
- Maintain mathematical resources and update as necessary.
- Keep up to date with new initiatives and trial in own classroom.
- Contribute to school development plan.
- Collaborate with parents and governors.
- Support teachers and teaching assistants in the implementation of maths interventions.

Home/school liaison

We see the relationship with parents as important in developing their children's mathematical skills. We involve the parents in their children's learning by:

- Providing twice yearly parent's evenings to give them verbal information on their child's progress and provide written targets for further improvement.
- Providing an end of year report outlining progress and attainment.
- Providing evening and daytime workshops to inform parents on how mathematics is taught and how they can support their child.

This policy needs to be read in conjunction with the following school policies:

Teaching and Learning Policy

Assessment and record keeping

Marking Policy

Special Educational Needs Policy

ICT Policy

Equal Opportunities Policy

Health and Safety Policy

PLACE VALUE	Week 1 - 4
Objectives:	
<p>Number and Place Value:</p> <ul style="list-style-type: none"> • Count from 0 in multiples of 4, 8, 10, 50 and 100. • Read and write numbers up to at least 1000 in numerals and words. • Recognise the place value of each digit in a 3 digit number. • Partition 3 digit numbers in different ways. • Identify, represent and estimate numbers using different representations including the number line. • Compare and order numbers up to 1000 using <, > and = signs. • Find 1, 10 or 100 more or less than a given number. • Count in ones, tens or hundreds, forwards or backwards, from any 3 digit number. • Round numbers to at least 1000 to the nearest 10 or 100. • Describe and extend number sequences involving counting on or back in different steps. • Solve number and practical problems involving place value and number facts. 	<p>Measures:</p> <ul style="list-style-type: none"> • Compare lengths, mass and volume/capacity. <p>Addition and subtraction:</p> <ul style="list-style-type: none"> • Add and subtract numbers mentally, including: 3d and ones; 3d and tens; 3d and hundreds.
<p>Key vocabulary:</p> <p>Place value – hundreds, tens, ones.</p> <p>Compare/order</p> <p>Bigger/smaller than</p> <p>More/less</p> <p>Partition</p> <p>Represent</p> <p>Estimate</p>	
<p>See White Rose for Fluency, Reasoning and problem solving activities.</p>	

Data will be processed to be in line with the requirements and protections set out in the General Data Protection Regulation