

MATHS POLICY

Approved by Governors:	
Signed	Chair of Governors
For review:	
Website updated:	

The School is committed to safeguarding and promoting the welfare of children and expects all staff and volunteers to share this commitment.

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1. Intent

The new National Curriculum states that:

“Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history’s most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.”

At Baldwins Gate School we recognise that Mathematics is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. The intention of the Maths curriculum at BG is that all children are taught to become positive, confident, competent and independent mathematicians equipped with the skills to become lifelong learners.

The intent of our Maths Curriculum is to develop;

- a positive attitude towards mathematics and an awareness of the importance of the subject to real life
- competence and confidence in mathematical knowledge, concepts and skills
- an ability to solve problems, to reason, to think logically and to work systematically and accurately
- initiative and an ability to work both independently and in cooperation with others
- an ability to communicate mathematical understanding and thinking
- an ability to use and apply mathematics across the curriculum
- an understanding of mathematics through a process of enquiry and investigation

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
- **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.

2. Implementation

Maths is taught in accordance with the requirements set out in the Early Years Foundation Stage Guidance 2012 and the objectives of the National Curriculum 2014 for KS1 and KS2. At BG, maths is taught as a discrete subject. In EYFS, we ensure that in maths children are given a wide range of experiences and opportunities to learn and then apply their mathematical knowledge and skills.

In KS1 and KS2, Maths lessons incorporate both arithmetic and reasoning. However, there are opportunities for the application of maths through other subjects.

2.1 Planning

Fluency, reasoning and problem solving are at the heart of planning at BG. Each lesson should provide the opportunity to further their mathematical understanding. Our approach to planning is based on knowing our children, their prior learning and our use of assessment, both formative and summative.

Long-term planning follows the National Curriculum 2014 and the Develop Matters document including Early Learning Goals.

Medium term planning in EYFS to 3 is based on the use of the White Rose Maths Hubs scheme of learning and the School's Calculation Policy. These schemes provide teachers with exemplification for maths objectives and are broken down into fluency, reasoning and problem solving, which are key aims of the National Curriculum. They support pupils working together as a whole group and provide plenty of time to build reasoning and problem-solving elements into the curriculum.

Medium term planning in Years 4 to 6 is based on the use of the Hamilton Trust scheme of learning and the School's Calculation Policy. These schemes provide teachers with termly objectives to ensure the National Curriculum is covered and provides opportunities for both fluency and reasoning.

Other planning resources may be used to supplement our medium-term planning.

2.2 Lessons/ learning/ teaching

In our Nursery provision, children are taught skills as a whole class and within groups. The opportunity to embed and apply is done through a continuous provision. Activities are delivered to meet the objectives of the Early Years Foundation Stage Curriculum.

In our Reception class, Maths is taught daily as a whole class and/or in small groups. Opportunities to embed and apply skills are done through group activities and the continuous provision of activities.

In both Key Stage One and Two, a range of teaching styles plus a variety of resources are used in the delivery of the curriculum. We have a range of mathematical resources including Numicon, Base10 and counters (concrete equipment). When children have grasped a concept using concrete equipment, images and diagrams are used (pictorial), prior to moving to abstract questions. Regular practice is used to reinforce knowledge, understanding and fluency. Through problem solving, children can use and apply their knowledge and demonstrate what they know and understand.

Within the class the children may be grouped in various ways for different activities (ability, mixed ability, peer learning etc). Opportunities are provided for all children to work as a whole class, in small groups and individually for a variety of appropriate activities, including discussions to promote mathematical language. Activities are differentiated to meet all abilities and needs.

Lessons are personalised using our lesson structure and to address the individual needs and requirements of the class. We implement our approach through high quality teaching delivering appropriately challenging work for all individuals.

Warmup	Review/Revisit	Modelled/ Guided Learning	Practice	Plenary
Knowledge or skills connected to today's learning / Practice core arithmetic / Active Maths / Reasoning question	Review previous lessons learning / Revisit prior Maths learning from e.g., last week, last month, last term	Share learning objective / Model learning / Guided learning / Scaffolded learning / Check understanding (Often whole class but can be grouped to meet needs)	Independent tasks / Guided groups / Differentiated (teacher directed or child directed) / Self, peer or live marked / Address misconceptions	Check understanding / Reasoning opportunity / Move on

In some classes, Maths on a Tuesday looks different. This is due to our curriculum coverage of Music and French. Tuesday's Maths focus on arithmetic and mental maths for fluency and recall.

R	1	2	3	4	5	6
Normal	Normal	Normal	Mental Maths	Mental Maths	Mental maths	Arithmetic

2.3 Inclusion

It is our aim that all children can experience success and to achieve their potential.

Children with Special Educational Needs in Maths are monitored by the class teacher and where appropriate in liaison with the SENDCo. Teaching staff provide support, individually and in small groups and specific interventions are delivered when necessary for pupils to make progress.

We develop and encourage the talents and skills of gifted and talented children. Teachers plan activities for the gifted talented pupils which teach/consolidate the higher order skills as well problem solving in different contexts.

3. Impact

At Baldwins Gate, children are engaged in and enjoy their Maths lessons.

Children have a positive attitude and have the confidence to independently tackle problems, building resilience.

Children demonstrate a quick recall of facts and procedures, including the recollection of times tables.

They will show flexibility and fluidity to move between different concepts and areas of Maths.

Children are developing their skills in being articulate and are able to reason verbally, pictorially and in the written form.

Children are developing to ability to make connections between mathematical concepts.

Well planned sequences of learning support pupils to develop and refine their maths skills.

Children show pride in the presentation and accuracy of their work.

Children are independently able to apply their knowledge a range of increasingly complex problems and across the curriculum.

Most children meet end of year expectations.

3.1 Assessment

Assessment informs the teaching and learning sequence. Formative assessment in every lesson helps teachers to identify the children who need more support to achieve the intended outcome and those who need further challenge. Feedback takes place in both the verbal and written form.

Summative assessments are completed at the end of each academic term to support teacher assessment and future planning.

Key data is analysed by the subject leader and SLT to inform on progress and future actions.