Maths policy

Bonnygate Primary



Approved by:

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1. Aims

Our mathematics curriculum aims to:

- Develop a positive attitude towards mathematics and an awareness of the fascination of the subject;
- Develop children's knowledge and understanding of mathematical concepts whilst enabling them to practice and hone skills and methods;
- Enable children to reason mathematically, to think critically and communicate their understanding;
- Give opportunities to apply learnt mathematical skills in different context across the curriculum;
- Encourage children to solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication;
- Promote the learning and development of number, shape, space and measure of children in EYFS to ensure they are ready for KS1.

2. Legislation and Guidance

This policy reflects the requirements of the <u>National Curriculum programmes of study</u>, which all maintained schools in England must teach.

It also reflects requirements for inclusion and equality as set out in the <u>Special Educational Needs and Disability Code of</u> <u>Practice 2014</u> and <u>Equality Act 2010</u>, and refers to curriculum-related expectations of governing boards set out in the Department for Education's <u>Governance Handbook</u>.

In addition, this policy acknowledges the requirements for promoting the learning and development of children set out in the Early Years Foundation Stage (EYFS) statutory framework.

3. Roles and Responsibilities

3.1 Subject Leaders Role

The role of the subject leaders for mathematics is to:

- lead in the development of mathematics throughout the school
- monitor the planning, teaching and learning of mathematics throughout the school and ensure teachers are familiar with the National Curriculum and support them in the planning process
- help raise standards in mathematics ensuring continuity and progression between year groups
- provide teachers with support in the teaching of mathematics
- advise and support colleagues in the implementation and assessment of mathematics throughout the school
- encourage the effective use of resources and displays to scaffold learning
- identify good practice & areas of development, to ensure that support is provided from within the school whenever possible
- provide staff with CPD opportunities in relation to mathematics within the confines of the budget and the School Improvement Plan
- teach demonstration lessons
- lead by example in the way they teach in their own classroom
- prepare, organise and lead INSET, with the support of the Headteacher
- work co-operatively with the Inclusion Manager
- observe colleagues with a view to identifying the support they need
- assist with requisition and maintenance of resources required for the teaching of mathematics (within the confines of the school budget)
- keep up to date with new developments in the area of mathematics and discuss regularly with the headteacher and governors the progress of implementing the National Curriculum in the school.

3.2 Other Staff

Other staff will ensure that the school curriculum is implemented in accordance with this policy. Each class teacher is responsible for the mathematics in their classroom in consultation with, and with guidance from, the Headteacher, the Deputy Headteacher, the Inclusion Manager and the mathematics subject leader.

4. Organisation and Planning Long Term Planning

The National Curriculum for Mathematics 2014, Development Matters and the Early Learning Goals provide the long-term planning for mathematics taught at Bonnygate Primary School. Teachers draw upon excellent subject knowledge, planning astutely, setting challenging tasks based on systematic, accurate assessment of pupils' prior skills, knowledge and understanding. They use well-judged and often imaginative teaching strategies to engage and inspire learners at Bonnygate Primary School. Planning is in line with the Primary Curriculum, using a format tailored to Bonnygate. The programmes of study for mathematics are set out year-by-year for Key Stages 1 and 2. Teachers are required to teach the relevant programme of study by the end of the key stage. Our school curriculum for mathematics is organised on a year-by-year basis and this information is made available online via the school website on the Maths Curriculum Overview – Long Term Plan.

Medium Term Planning

At Bonnygate Primary School, we follow a mastery approach of blocked unit plans for year groups with suggested time allocations. Reception to Year 6 use their Long-Term Curriculum Overview alongside the White Rose Maths scheme of learning for their Medium-Term planning documents. These schemes provide teachers with exemplification for maths objectives that are broken down into fluency, reasoning and problem solving – key aims of the National Curriculum. This is enhanced by a creative approach with using and applying as a focus.

Short Term Planning

The above schemes of learning support weekly lesson planning which is completed per class as teaching slides and resources and is available to the senior leadership team and the maths lead for monitoring.

Starter activities each day consist of a series of varied arithmetic questions to support pupils with revisiting prior learning and consolidation of current learning. Following the teaching input, children are then set a task of about 6-8 fluency questions and a variety of reasoning problems, with each lesson ending with an Exit Ticket. Research has shown that if a child can answer six fluency questions correctly, then they can answer 26 questions correctly, with no added benefit. Providing they are fluent and accurate with the calculation, then it is more essential for children to be moved on to reasoning questions where they have to explain the maths. Teachers of the EYFS ensure the children learn through a mixture of adult led activities and child-initiated activities both inside and outside of the classroom.

In addition to a daily mathematics lesson, twice a week children in Years 1-6 participate in early morning maths tasks: Flashback Four (four questions to consolidate prior learning from different terms and years) and TT Rockstars or Numbots (times tables and number bonds practice): Year 1-4 and Flashback Four on both Monday and Tuesday for Years 5-6. Children in Years 3 and 4 also participate with times tables practice recording this in a Times Tables Practice Book and children in Year 4 are assessed half termly on their recall of times tables, in accordance with the new national multiplication check.

Teachers' planning and organisation provides opportunities for:

- Exploration, play, problem solving, reasoning and investigations.
- Whole class activities.
- Direct teaching of groups of various sizes, or individuals.
- Observation of groups or individuals.
- Assessment and record keeping.
- Children to work on individual targets.
- A variety of engaging starter activities (Flashback Four).
- Arithmetic fluency.
- Development of times tables recall.

We aim to develop pupils' confidence and competence to use and apply their mathematics by providing practical, investigative and cross-curricular opportunities in all units. It is essential that children are taught to recall and use taught mental skills at every opportunity.

See our EYFS policy for information on how our early years curriculum is delivered.

Resources

Children have resources available in each classroom. Every room has a common core of basic mathematics equipment for easy access. Teacher's resources e.g. White Rose teaching slides, reference books, with activity ideas, are available for each year group. Each classroom has additional stock appropriate to the needs of the class. All equipment is stored in labelled trays to facilitate children's independence. There are larger and other specific resources stored in cupboards in the Breakfast Room.

5. Inclusion

Teachers set high expectations for all pupils. They will use appropriate assessment to set ambitious targets and plan challenging work for all groups, including:

- More able pupils
- Pupils with low prior attainment
- Pupils from disadvantaged backgrounds
- Pupils with SEN

• Pupils with English as an additional language (EAL)

Teachers will adapt lessons so that pupils with SEN and/or disabilities can study every National Curriculum subject, wherever possible, and ensure that there are no barriers to every pupil achieving. This is monitored by analysing pupil performance throughout the school to ensure that there is no disparity between groups. Appropriate support is provided as necessary to ensure that all children can access the curriculum.

Teachers will also take account of the needs of pupils whose first language is not English. Lessons will be adapted so that teaching opportunities help pupils to develop their English, and to support pupils to take part, for example, using picture cues, repeating instructions, speaking clearly, emphasising key vocabulary, playing mathematical games, encouraging children to join in counting, chanting, finger games, rhymes etc.

Further information can be found in our statement of equality information and objectives, and in our SEN policy and information report.

6. Monitoring arrangements

Governors monitor coverage of National Curriculum subjects and compliance with other statutory requirements through: Subject leaders monitor the way mathematics is taught throughout the school by:

- Monitoring aspects of mathematics by discussing samples of work and observing practice in the classroom, in liaison with the Senior Leadership Team.
- Monitoring year group and class planning, giving support and input where necessary.
- Analysing children's answers in termly assessment tests to ascertain our strengths and weaknesses and updating monitoring plan in accordance with findings.
- Undertaking learning walks to monitor teaching and learning and use of a mastery approach in all classrooms.

Subject leaders also have responsibility for monitoring the way in which resources are stored and managed.

This policy will be reviewed annually by the maths subject leads and the headteacher. At every review, the policy will be shared with the full governing board.

7. Links with other policies

This policy links to the following policies and procedures:

- EYFS policy
- Assessment policy
- SEN policy and information report
- Equality information and objectives
- Maths calculation policy