



Greenfield Primary School

MATHEMATICS POLICY

Approved by Governors (date)

Signed on behalf of the Governing Body

Chair of Governors

GREENFIELD PRIMARY SCHOOL

MATHEMATICS POLICY

Rationale

At Greenfield Primary School we aim to provide a high quality mathematics curriculum in order to inspire all pupils to excel and achieve in this essential subject. It is a highly interconnected discipline which 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. We believe that mental calculation and the knowledge and understanding of key mathematical facts is critical to achieving these aims and therefore it is central to allowing children to meet the demands of the challenging national curriculum. Our aim is to provide every child with the highest standard of teaching to allow them to fulfil their potential and this applies to all groups of children in school, including LAC, D/SEN, Disadvantaged/Pupil Premium, G & T, EAL and other vulnerable groups including 'hard to reach' families. It is our aim to provide at least five hours of quality mathematics lessons per week with additional teaching taking place through intervention and rapid tasks.

Purpose

Through mathematics at Greenfield Primary School we aim to ensure that all pupils:

- Develop a positive attitude to mathematics as an enjoyable, interesting and valuable subject.
- Have confidence in their ability to deal with mathematical problems.
- Achieve their full potential in mathematics; have secure knowledge of key mental skills as well as the ability to apply these in different circumstances.
- Work collaboratively and cooperatively with others in a range of situations; listening carefully to others and articulating and explaining their own ideas using a range of mathematical terms.
- Become fluent in the fundamentals of mathematics through tackling increasingly complex problems over time so that they show conceptual understanding to apply their 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 in 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.

- Understand the appropriate underlying skills, concepts and knowledge of number, measurement, geometry and statistics.
- Are able to calculate accurately and efficiently using both mental and written methods, using a range of appropriate strategies.
- Recognise the value of computing and make reasoned choices about the most appropriate tools to use for each task.
- Appreciate the role of mathematics in real life and use their skills across the curriculum.
- Have equality of opportunity whatever their background or circumstances.

Guidelines:

- We aim to move children through the programmes of study at broadly the same rate; however, progression is dependent on security of knowledge of key skills.
- Children who fall behind will consolidate their understanding of previous skills before moving on, with additional practise if necessary.
- Those who grasp new ideas rapidly should be accelerated through rich and sophisticated problems before moving through new content.
- First quality teaching will address the needs of most pupils. Targeted intervention programmes are used when appropriate for specific groups and needs.
- Teaching sequence shall come from the medium term plans for each year group, with extra importance placed on the 'Power Standards' where children are not securing these.
- Intervention will be focused on these 'Power Standards' as a first priority to ensure that children are securing the most significant objectives as a point of priority.
- A variety of teaching and learning styles will be employed and catered for to best suit different groups of children to allow all to fulfil their potential.
- Mathematics will be taught across the whole curriculum with clear links made to support children's ability to apply their key skills in different circumstances.
- Each class teacher will usually provide a daily maths lesson which may vary in length and additional maths teaching will take place; using five minute slots and other subjects to help practise key skills.
- Homework will be set for mathematics most weeks with this directly linked to each year groups Key Instant Recall Fact for that half term.
- Unless there is a specific cohort need, children will work in class groups for mathematics; differentiated as appropriate for the needs within the class (from Sep 2016)
- All lessons should have clearly defined expectations that are sufficiently challenging to allow all children to progress.
- Mental mathematics is critical and this should be taught/practised every day as well as forming the basis of targets and homework.
- Children will have the freedom to choose and use appropriate methods and mathematical equipment needed to support them to solve a problem (including computing where appropriate).

- Teachers will use open ended questions and provide plenty of opportunities for children to reason, use and apply skills; providing challenge for G & T children and opportunities for all abilities.
- Lessons will show appropriate differentiation for different pupils, taking into account individual education plans and specific needs, where appropriate.
- Differentiation will be through a variety of appropriate strategies e.g. lesson content, adult support and outcome.
- Learning walls will be used and maintained as the teacher sees fit, with an expectation of the inclusion of key information that will be useful for pupils in their everyday lessons, as well as specific support for a current unit.

Planning/Assessment/Monitoring and Review

Every year group has a range of resources available to them to support them with planning. The National Curriculum provides the content for each year group and this is further broken down into a teaching sequence by medium term plans. Teachers should broadly follow these plans at a pace appropriate to their children's ability with the assumption that most children should be capable of working at that pace. However, teachers should prioritise the Power Standards to ensure that the most essential objectives are secured and may spend more time on these than the other objectives. Where children are unable to learn or access their year group objectives, children will be taught and planned for to meet key skills from earlier year groups. Weekly plans will be written to show the teaching programme for that week but these should be adjusted to meet the needs of the different children as they arise.

Assessment will take place at three consecutive levels; day to day, periodic and transitional. These assessments will be used to inform teaching in a continuous cycle of planning, teaching and assessment. Day to day assessments will be an informal part of each lesson to check children's understanding and will form the basis of any changes to weekly plans. Effective AFL is integral to this. Periodic assessments will take place twice a year. Each year group uses a Symphony Assessment Sheet for this to show whether children are beginning (B), developing (D), secure (S) or exceeding (S+) their year group objectives. In some circumstances children will be unable to learn the appropriate year's curriculum and they shall be assessed accordingly against earlier year groups. Transitional assessments are the final assessment near the end of the year and will be reported to parents and the child's next class teacher. Both periodic and transitional assessments against these judgements will be collected three times each year and entered into O-track. Judgements will be made using teacher assessment with the support of test materials. It is the responsibility of the subject leader to analyse this data and work out key percentages for each class and year group related to key groups of children. This information should then be used to drive improvement in mathematics and forms the basis of the annual report. The mathematics leader, SLT, phase leaders, the 'Mathematics Core Team' and governors (through the learning and well-being

committee) monitor standards and attainment in mathematics based on age related expectations.

Parents are updated on their child's progress in two parent's evenings in autumn and spring and also in the annual end of year report. Annual parent meetings at the beginning of the year keep parents up to date in terms of year group expectations.

Leadership

The maths subject leader is responsible for monitoring the provision of mathematics and providing a strategic lead and direction for the subject throughout the school. This will be through the use of book scrutinies, lesson observations, learning walks, informal discussions, data analysis and planning scrutinies. This work is supported by the SLT, LMT, key stage leaders, the maths core team and governors. Furthermore, the maths leader will ensure that teachers are familiar with the statutory guidelines, provide support in planning, work with the SENCO and will also prepare, organise and lead CPD and staff INSET as appropriate. In addition to this, the maths subject leader will take responsibility for leading the Core Team and their effectiveness in raising standards in the school as well as ensuring the subject is raised and covered in phase meetings.

Resources

Each class should maintain a bank of resources which are needed for use on a regular basis. Other resources which are needed less regularly are stored in the maths cupboard.

Links with other policies:

- Assessment Policy
- Marking and Feedback Policy

Version	Date	Comment
V1	Date created: 29/2/2016 Review date: Feb 2019	A Gordon