



# **Maths Policy**

Agreed at (please indicate with a \* ):

- Full Governing Body Meeting \_\_\_\_\_
- Children and Learning Committee Meeting \_\_\_\_\_\*
- Resources Committee Meeting \_\_\_\_\_

Date: 28.6.22

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# Maths Policy

## 1. Introduction

a) The overarching aim of the Maths policy is to ensure that Learning and Teaching in Mathematics is engaging, challenging, and effective in ensuring good progression for all children. Maths is both a subject in its own right and a tool for use in other subjects and in life. Fluency in maths supports understanding across many other curriculum areas as well as in real life situations.

## 2. Aims and objectives

- a) Mathematics is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas. Pupils should make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems.
- b) By the time children leave Stamford Green:
  - I. all pupils become fluent in the fundamentals of mathematics through varied and frequent practice over time.
  - II. All pupils are challenged by increasingly complex concepts and problems over time and are able to recall and apply knowledge rapidly and accurately.
  - III. All pupils are able to reason mathematically and to talk about their mathematical thinking.
  - IV. All pupils can solve problems by applying their mathematical skills and knowledge to a range of increasingly sophisticated problems.

## 3. Statutory Requirements

- a) Statutory requirements for the teaching of Mathematics are laid out in the National Curriculum in England Framework document September 2013 and in the mathematics strand of the statutory framework for the Early Years Foundation Stage 2021.
- b) The Maths programme of study is based on the following areas:
  - I. Number;
  - II. Addition and Subtraction;
  - III. Multiplication and Division;
  - IV. Fractions, decimals, percentages, ratio and algebra;
  - V. Geometry;
  - VI. Measurement;
  - VII. Data (From Year Two onwards)
- c) The National Curriculum is divided into three key stages: Key Stage 1, Lower Key Stage 2 (Years 3 and 4) and Upper Key Stage 2 (Years 5 and 6).
- d) By the end of each Key Stage, pupils are expected to know, apply and understand the mathematics, skills and processes specified in the relevant programmes of study. The National Curriculum gives detailed guidance of what should be taught at each Key Stage under the above areas.

- e) The National Curriculum is explicit in the expectation that the majority of pupils will move through the programmes of study at broadly the same pace. However, decisions about when to progress, based on the security of pupils' understanding and their readiness to progress to the next stage, are left to schools. Pupils who grasp concepts rapidly should be challenged by being offered rich and sophisticated problems before any acceleration through new content. Those who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice, before moving on.
- f) All schools are required to set their school curriculum for Maths on a year-by-year basis and make this information available online. The curriculum map for Maths is published on the school website:  
[http://www.stamford-green.surrey.sch.uk/fileadmin/user\\_upload/Curriculum/SGPS\\_Mathematics\\_Expectations\\_2014.pdf](http://www.stamford-green.surrey.sch.uk/fileadmin/user_upload/Curriculum/SGPS_Mathematics_Expectations_2014.pdf)

#### 4. Subject Organisation

- a) The maths whole-school long-term overview and the Mathematics Expectations document detail all of the statutory requirements to be taught. The mathematics expectations document also includes year-group-specific information for progression in written calculation strategies and mental calculation.
- b) All year groups have a clear intent statement which gives a succinct description of what lies at the core of mathematics learning and teaching for that year.
- c) All year groups have a set of expectations for mathematical skills which children should demonstrate by the end of that year. Teachers use these expectations as a basis for their planning, to ensure that the lessons are pitched with an appropriate level of challenge. Teachers are given the flexibility to plan their lessons to meet the needs of the children to enable them to develop mastery in mathematics.
- d) In the Early Years Foundation Stage, new concepts are taught during short whole-class teaching sessions building on previous knowledge in small steps. In addition children have opportunities to consolidate their mathematical understanding on a daily basis in a short class 'Maths Meeting'. They practise using and applying mathematical skills including pattern spotting; comparing; reasoning; number and shape skills and simple calculations. A broad range of practical mathematical activities are available during the day. These are both adult and child initiated; inside and outside the classroom; large-scale and small scale.
- e) In Key Stage 1 and Key Stage 2 children have mathematics lessons four times per week and separate short arithmetic lessons and separate practice sessions four times per week. These are taught in class (mixed ability). Learning activities provide challenge for all and aim to develop fluency and an understanding of the links between areas of mathematics. From time to time teachers may choose to group children across the year group for one or two lessons to allow time to address their specific misconceptions or for children to work with different people. These groups will be flexible, fluid and will not be used on a repeated or regular basis. Focussed interventions are put in place for children who require extra support. These will take place in addition to and separately from the Maths lesson.
- f) A mastery approach is used and children are able to work through a series of independent activities called 'Fathoms' each of which challenge understanding at an increased depth from the previous one. Children who grasp a concept confidently and quickly move on to tackle a 'Diving Deeper' problem, which is of an open-ended nature. In line with the school's 'Learning without Limits' approach, no child is restricted as to which Fathom they can reach if they have demonstrated good understanding of the area studied. For those children who find a concept challenging to grasp, the class teacher may work with them to revisit key aspects of the whole class teaching before they work on the independent tasks.
- g) In Key Stages 1 and 2 all children complete daily practice of speed recall of number facts (including times tables) and mental calculation at speed. This is in the form of 'Speedy Maths',

a programme developed by the school to ensure pace, challenge and progression through the school. This is in addition to the maths lesson and supports the school's focus on teaching for mastery.

- h) Methods of written calculation are taught according to the school 'Progression in Calculations' document.
- i) Teachers in all year groups provide opportunities for use of manipulatives and drawings (including maths apps) to develop and deepen mathematical understanding.
- j) Problem solving and mathematical thinking are taught throughout the school. Opportunities for the practice of specific skills and techniques are planned for, as well as for children to choose and apply them independently.
- k) Teachers take advantage of opportunities to make cross curricular links. They plan for pupils to practise and apply the skills, knowledge and understanding acquired through maths lessons to other areas of the curriculum.
- l) Homework for children is set in accordance with the Homework Policy.
- m) Early bird maths retrieval practise takes place in Y2-Y6 every morning.

## **5. SEND**

- a) We provide for all children so that they achieve their potential in maths according to their individual abilities. See SEND policy for further information.

## **6. Assessment and target setting**

- a) Children receive regular feedback about their work and next steps are identified in accordance to the Assessment Policy.
- b) Work is assessed in line with the Assessment Policy.
- c) Children take part in twice-yearly responsive online tests which provide formative and summative data for teachers, maths leader and school leaders.

## **7. Role of the Maths Subject Leader**

- a) The Maths Subject Leader is responsible for the development and monitoring of the Maths curriculum to ensure a coherent strategy, where children make good progress.
- b) The Maths Subject Leader assists staff by leading training sessions and supporting them in the classroom. The Subject leader is responsible for implementing changes required by the National Curriculum and the statutory framework for the early years foundation stage, attending training courses, feeding back key skills and information to staff. The Subject Leader ensures that all staff access relevant CPD.
- c) The Headteacher/Leadership Team/Maths Subject Leader will monitor maths throughout the school with activities such as lesson observations, book scrutinies, analysis of data, in accordance with the schedule.