

**KINGSWAY
COMMUNITY TRUST**

MATHEMATICS POLICY

APRIL 2022

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Date: April 2022

Review date: April 2027

Introduction

Mathematics is important in everyday life. It is integral to all aspects of life and with this in mind we endeavour to ensure that children develop a healthy and enthusiastic attitude towards mathematics that will stay with them.

The Kingsway Community Trust schools use the objectives set out in the new national curriculum, which ensures continuity and progression in the teaching of mathematics. With this in mind, we try to ensure that maths lessons are vibrant and exciting, incorporating many opportunities to actively problem solve in real life situations. Activities which require perseverance are a feature of most lessons designed to develop resilience and perseverance. Opportunities to use the outdoors is also a key feature. In early years the curriculum is guided by the objectives set out in 'Development Matters, the national curriculum, calculation policy. This is assessed at the end of reception using the Early Learning Goal for mathematics.

Equality

Under the Equality Act 2010 we have a duty not to discriminate against people on the basis of their age, disability, gender, gender identity, pregnancy or maternity, race, religion or belief and sexual orientation.

This policy has been equality impact assessed and we believe that it is in line with the Equality Act 2010 as it is fair, it does not prioritise or disadvantage any pupil and it helps to promote equality at this school.

The Trust Board will ensure that in the cycle of policy reviews, that policies and practices are scrutinised to identify the effects they have on individuals or groups of people in relation to equality.

Teaching of mathematics

Our Maths Curriculum is based on a three part model: Fluency, Reasoning and Problem solving.

Fluency: Opportunities to rehearse key skills presented in many different ways using various concrete equipment and visual aids. To ensure mathematical concepts are taught at such depth that this enables children to recall and apply these facts to reasoning and problem solving.

Reasoning: To provide children with the necessary skills and language to enable them to explain their methods and mathematical thinking and to work in a logical manner.

Problem solving: Problems presented in a range of forms whereby children have to apply their fluency, knowledge and reasoning skills to achieve an outcome.

Over a unit, teachers should provide children with opportunities to develop their skills in fluency, reasoning and problem solving.

Year 1 - 6

Maths at Kingsway Community Trust is planned from the documentation contained in the long term plans compiled by the maths subject leaders.

Key documents:

Long term plan – An outline of topics which includes the national curriculum objectives to be covered plus opportunities to cover areas for development based on assessment analysis. There is a significant focus on the use and application of all areas of mathematics.

Written calculations policy – Methods to be taught for each year group for each of the four operations.

EYFS written calculation policy – This clearly sets out the expectations for calculation in the early years and the smaller pre-steps that feed into the early learning goals for calculation.

EYFS

The teaching of mathematics in the early years reflects the same principles as years 1 to 6 however there is much more focus on the use of practical equipment to help children to understand and visualise numbers. Towards the end of the key stage, children begin to record their calculations in a more formal manner. Assessment at the end of reception is used to inform year 1 of their mathematical achievements and areas for development. There is a separate written calculations policy for EYFS which outlines the progressive steps for these areas.

Provision

Children will be given regular opportunities to work in the following ways:

- Group work
- Paired work
- Whole class teaching
- Individual work
- Speaking and listening partners

Children will have regular opportunities to enhance their mathematical understanding using the following ICT resources available in school:

- Interactive whiteboards
- Laptops
- iPads including taking photographs
- Notebooks

Success criteria is used regularly and displayed in classrooms on the working wall for maths to support children with their understanding of current objectives. This is used as a whole school strategy and for pupils to use as a self-assessment tool.

Pupils engage in:

- The development of mental strategies
- Written methods
- Practical work
- Investigational work
- Problem solving
- Using and applying
- Mathematical discussion
- Consolidation of basic skills and number facts

Practical resources

Throughout the school there is a wide variety of manipulative equipment, examples of which are: dice, number lines, 2D and 3D shapes etc. Kingsway Community Trust use Numicon resources from nursery upwards as we

believe they are essential in developing children's visualisation of maths. These consist of a series of coloured tactile shapes where the number of holes corresponds to the numeral.

Times tables

Each year group has specific times tables to learn so that by Year 4 the children know all their times tables to 12 x 12. Year 1 begin to learn their times tables by practicing counting forwards and backwards in 2, 5 and 10's. Children are assessed and are able to gain their times table badges.

SEN / Inclusion

Where children have special needs in mathematics, specific targets are written in the form of an individual education plan. All children's needs and levels are taken into account when planning maths lessons, activities for children with special educational needs are tailored to their personal targets rather than a simplified version of the main lesson. Numicon resources in particular are used to support children's learning.

Marking and feedback

Children receive regular feedback about their work. This will be verbal during the lesson and written in their maths books. Pieces of work are marked against the learning objective and all calculations are corrected. Worked examples are provided as needed. Children are given opportunities to correct work and complete follow up questions set by the teacher to take them to their next step or to provide challenge. In EYFS, marking focuses more on verbal feedback than written as is age appropriate.

Assessment

Assessments are carried out three times a year for years one to six. This consists of an arithmetic and a reasoning and problem solving test. The outcomes of these assessments are used to inform planning along with knowledge of the child's work in class. In EYFS, regular observations of independent learning and assessments of learning outcomes in lessons are used to decide on the next steps in learning.

Homework

Maths homework is sent home weekly in years 1-6. It is designed so they can practice skills taught in class and is differentiated to be at the children's ability level.

Parents

Our current policies and examples of classroom practice are available on the website .
During parents' evenings, detailed information about children's progress is provided and discussed.