



# Maths Policy

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Version	Date	Reviewed by	Date of next review	Comments
1.0	December 2014	JB/VC		
1.1	April 2017	P&C Ctte	Spring 2018	
1.2	February 2018	P&C Ctte	Spring 2021	Addition of 'Times TableRockstars' to resources used
1.3	February 2021	P&C Ctte	Spring 2024	Updated pre-committee by LN/JB

**All policies are written to reflect the school's core values of 'Creativity, Collaboration and Independence'.**

**This policy should be read in conjunction with the Curriculum policy.**

## Aims

At Kingslea we aim to develop the whole mathematician by providing: a foundation for understanding the world; the ability to reason and problem solve mathematically; preparation for the wider world and future education and a sense of enjoyment and curiosity about the subject. Through teaching maths, we aim to ensure the following:

- All children are provided with a comprehensive maths programme that considers their individual needs and interests.
- Fluency and recall of knowledge, particularly when solving increasing complex problems, is developed using both written and mental methods.
- Understanding and confidence is developed in using and applying maths knowledge and skills, both independently and collaboratively.
- Children will be equipped with the skills and knowledge required to understand maths in real life contexts and ask mathematical questions about the world around them.
- Children will be able to reason mathematically to communicate facts, ideas and opinions using mathematical language.
- A stimulating environment will be provided, which nurtures mathematical interest and understanding.
- Children will develop an enjoyment of maths and a sense of curiosity about the subject.

## Objectives

The aims will be achieved through:

- Using a wide range of resources, including the school and natural environment, to explore, support and develop mathematical understanding and thinking.
- Having a well-developed sense of number and place value.
- Confidently recalling known number facts such as number bonds, multiplication tables, doubles and halves.
- Using recalled facts to develop mental fluency when calculating and solving problems.
- Calculating accurately and efficiently, both mentally and when using written methods, drawing on a range of calculation strategies.
- Making sense of mathematical and real-life problems, choosing the right method and resource for the task.
- Communicating and reasoning about their maths work by explaining answers and methods, using correct mathematical language.
- Judging whether answers are reasonable and have strategies for checking them, where necessary.
- Constantly developing a bank of mathematical vocabulary.
- Developing the following mathematical skills:
  - collecting, presenting and analysing data
  - numeracy and mathematical reasoning across the curriculum
  - understanding and using a variety of measures
  - making estimates and sense-checking their work

## Policy Statement

### Role of the Maths Co-ordinators

The Maths Co-ordinators will oversee the planning and delivery of Maths within the school.

The Maths co-ordinators will be responsible for:

- Raising standards in Maths as a national curriculum subject.
- Facilitating the use of Maths across the curriculum in collaboration with all subject co-ordinators.
- Providing or organising training to keep staff skills and knowledge up to date.
- Advising colleagues about effective teaching strategies and managing equipment.
- Monitoring the delivery of the Maths curriculum, through book audits and moderation.
- Using areas of development to set action plan targets.
- Reporting to the Governors on the current status of the subject.
- Organising, auditing and obtaining resources.
- Attending curriculum meetings to discuss findings from monitoring, successes and areas for development.
- Keeping and updating the subject lead folder.

### Staff Development and Support

The level of expertise and confidence to teach Maths at Kingslea is continually being developed. Support is given to staff to refine existing strengths in order to continue to raise the standards of achievement. This will be accomplished by the following:

- Staff meetings.
- Whole staff inset days.
- Individual support by co-ordinators and other competent staff members.
- Continual on going monitoring by co-ordinators.
- An accessible and carefully implemented curriculum.
- Co-ordinator support for long, medium and short-term planning.
- Feedback from maths audits.
- STAR sessions.
- Discussion within maths moderation.
- Feedback from Curriculum meetings.
- Standard meetings and feedback from main meetings.
- Horsham Schools Partnership meetings.
- Specialised maths CPD courses for individuals.

### Role of the Class Teacher/Planning

#### Role of the Class Teacher

As class teachers, we focus on providing inspiring, interactive, pacey and skill-building sessions where the children can reach their highest personal achievement. Lessons have clear learning challenges, which are shared with the children and follow the National Curriculum. All teachers are to respond to any staff training and use resources / planning provided for them, from the maths team.

Teaching Assistants provide support where necessary in the form of individual or small group work. They are involved in the planning and assessing of children's work.

## **Planning**

Each year group has an LTP that they follow. Each Term has a KWROB (Kingslea White Rose Objective Breakdown), which teachers are expected to follow. This outlines the objectives that need to be covered in each unit on the LTP and gives links to where these objectives appear in the White Rose Small Step planning. There are also MTPs for each unit in each year group – these include mental objectives, vocabulary, pre assessment ideas and Mastery ideas.

Members of staff teaching maths will be expected to use all the above planning tools to ensure they are covering all aspects of the National Curriculum and that children are developed into ‘well rounded’ mathematicians. They will make their maths teaching explicit on their weekly / unit plans. These will show how the learning will be scaffolded for all learners across the year group in line with the whole school scaffold approach to teaching.

## **Assessment and Record keeping**

At present in the Foundation Stage, children are assessed using the EYFS national guidance. In both Key Stage 1 and 2, the National Curriculum is used to not only plan, but assess children. Each term, during an assessment week, children sit summative tests, and the results are recorded and discussed. In addition, in Key Stage 1 and 2 mini pre and post assessments are created for each unit of work. Teachers are expected to use these unit assessments, as well as summative data, to inform future planning and complete class standards, annually, for maths, to inform the maths co-ordinators of cohort specific progress. Individual progress is reported annually to parents in school reports, including mathematical skills.

Some examples of work will be kept for the school maths portfolio at regular intervals to allow for the monitoring of the subject. The maths co-ordinators monitor planning and look at children’s work at regular intervals, to ensure key skills are being taught and assessment opportunities are being planned for all ability groups.

Annually, the maths co-ordinators report standards in maths across the school, to the governors.

## **Inclusion**

### **Equal Opportunities**

In accordance with Kingslea’s Equal Opportunities Policy, all children have equal access to the maths curriculum regardless of race, gender or ability. The school are currently taking a scaffold approach to teaching to ensure all children can access learning, and this continues in maths. Children are supported in the following ways:

- Use of concrete resources.
- Scaffolding.
- Vocabulary pre teach and focus sessions.
- Fluid mixed groupings.
- Maths specific interventions (for example Success@arithmetic).
- Use of White Rose Small Step documents.

At Kingslea, we approach maths teaching following the concrete – pictorial – abstract approach to enable pupils to be able to move fluently between representations of mathematical ideas. We encourage our pupils to make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. This is supported through a variety of resources, including physical apparatus and well-known scaffolds, such as tens frames and ‘part-part-whole’ models.

Our curriculum is structured in a way that allows children to revisit, consolidate and master all aspects of maths. This is achieved through the provision of our unique Kingslea order of progression. Progression in calculation is also driven by the Kingslea Calculation Policy, which is regularly updated to match current mathematical and education thinking.

### **Special Needs**

Children with special educational needs are involved in all aspects of mathematical study at an appropriate level.

- Children that experience difficulties will have the learning intentions broken down into achievable goals with resources and materials that help make it relevant to their own experiences.
- Children with potential to reach Greater Depth are identified by teachers; they will have opportunities to extend their learning through challenging class activities and through enrichment programmes.

### **Resources**

Across Years 1 to 6, teachers are provided with bespoke MTPS and KWROBs. A lot of learning is based on the use of White Rose Small Steps materials to structure teaching and learning. In addition, the children have access to an array of concrete materials to support number and the CPA (Concrete-Pictorial-Abstract) approach.

- Most maths resources are held in individual classes or year groups.
- Some resources are held centrally in the old staffroom.
- The school makes a yearly subscription to various online platforms to support children in developing their understanding and fluency of maths, both at home and in school.

### **Homework**

Children are set homework appropriate for their age. The homework aims to consolidate learning, work on mental maths skills and revisit prior skills. It may be set on paper or online.

We support our children through a variety of online maths platforms that we have organised into a progressive format for children to use to enhance and recall their maths skills and become more fluent mathematicians. The programmes we use are as follows:

- Numbots
- Sumdog
- TT Rockstars
- My Maths

### **Community Links**

The school aims to foster and develop links with the local and world-wide community. Examples of this may include, but are not limited to the following:

- Involving parents and others to share their expertise.
- The offering of parent workshops that enable our community to experience our mathematics curriculum.
- Inviting people to be involved in projects in a range of ways.
- Sharing and collaborating with people in other parts of the world using digital technology.
- Visiting other schools to share good practise and discuss current maths initiatives.