# Maths Learning at Beormund

"The only way to learn mathematics is to do mathematics."
- Paul Halmos

#### Intent

Our broad and balanced Maths curriculum aims to provide the children with a secure foundation for understanding Number and to develop their mathematical skills to the maximum possible, at a pace appropriate to their current level of ability. By delivering a high-quality maths curriculum that is both challenging and enjoyable, we aim to ensure that all children experience:

- A positive attitude to maths, including, confidence, enjoyment and perseverance.
- An appreciation of the place of maths in society.
- An ability to think mathematically and work independently.
- An ability to solve problems, to reason, to think logically and to work systematically and accurately
- An ability to use maths across the curriculum.

#### **Implementation**

As many of the children have experienced disruption in learning, at Beormund we have adopted a 'back to basics' approach.

The focus for all year groups is on consolidating the children's knowledge, understanding and execution of number and the four operations with great emphasis on Times Tables.

The structure of the maths curriculum across the school shows clear progression in line with age related expectations and key knowledge and skills are also revisited regularly, allowing repetition to embed learning.

A wide range of resources are used in order to implement the intent of our curriculum. These resources allow us to better use models and images to support learning in each area and enable the progression from concrete to pictorial to abstract. Resources and equipment are audited regularly so that children have materials of high quality and accuracy to support their learning.

Every class follows a Maths scheme which is based on the National Curriculum.

To help with the progression on how to teach addition, subtraction, multiplication and division in the school, and to ensure a clear understanding when teaching more concise methods of calculation, we use the:

- Written Calculation Policy for Southwark Primary Schools
- Mental Calculation Strategies for Y1-Y6
- Minimising the gaps in Mathematics Guidance for school leaders, maths subject leaders, teachers and teaching assistants from Y1 to Y6

Basic Maths skills are taught daily and lessons are personalised to address the individual needs and levels for a class.

- Correct mathematical vocabulary is used by all teachers and this is discussed with and explained to children who are then encouraged to use it independently when talking about maths.
- Vocabulary is displayed clearly on working walls and is referred to in every lesson.
- With Multiplication Tables having been identified as an area of weakness, the
  children are given an opportunity to practise and improve their knowledge and rapid
  recall of multiplication facts through Times Tables Rockstars (TTRS a carefully
  sequenced online programme of daily times tables practice). Every week we have an
  in-class competitions where children are awarded stickers, and once every half term,
  competitions take place between classes, where children can win a trophy for their
  class.
- Children are formatively assessed in each lesson using a range of mini-plenaries in order to support each individual child at the level and pace they are learning.
- Summative assessments are carried out at the end of each term and their results, form discussions in Pupil Progress Meetings and help teacher's assessment to update our school tracker.
- Homework is set to develop and review children's learning.

# Maths Curriculum Overview

# Year 1:

Autumn	Spring	Summer
- Counting	- Multiplication and	- Measurement
- Place Value	Division	- Geometry:
- Addition and Subtraction	- Fractions	Position and Direction
		Properties of shape

# Year 2:

Autumn	Spring	Summer
- Place Value	- Multiplication and	- Revision of all concepts
- Addition and subtraction	division	- Shape and space
- Money	- Fractions	- Data Handling
	- Time	
	- Shape and space	

# Year 3:

Autumn	Spring	Summer
- Place Value	- Multiplication and Division	- Fractions
- Addition and Subtraction	- Fractions	- Measurement:
- Multiplication and Division	-Measurement:	Time
	Money	Mass and Capacity
	Length and Perimeter	- Geometry:
		Properties of Shape
		- Data Handling

#### Year 4:

Autumn	Spring	Summer
- Place Value	- Multiplication & Division	- Decimals
- Addition and Subtraction	- Fractions	- Measurement:
Multiplication and Division	- Decimals	Money
- Measurement:	- Measurement:	Time
Length and Perimeter	Area	- Statistics
		- Geometry:
		Properties of Shape
		Position and Direction

## Year 5:

Autumn	Spring	Summer
- Algebra	Number:	- Decimals
- Measurement	- Multiplication	- Properties of shapes
- Geometry (properties of shape)	- Division	- Position and Direction
- Geometry (position and direction)	- Fractions	- Converting Units
- Revision of number (place value)	- Decimals	- Volume
- Revision of number (calculations)	- Percentages	
- Revision of FDP		

## Year 6:

Autumn	Spring	Summer
- Place Vale	- Algebra	- Geometry: Properties of Shape
- Operations	- Measurement	- Properties of triangles and
- Fractions	- Geometry (properties of shape)	circles.
- Decimals	- Geometry (position and	- Area of triangles and
- Percentages	direction)	circles.
	- Revision of number (place	- Consolidation,
	value)	Investigations and
	- Revision of number	preparations for KS3.
	(calculations)	
	- Revision of FDP	

As well as being taught as a stand-alone subject, the maths curriculum is also embedded into other areas of the curriculum:

#### Science



In the National Curriculum for Science, children are required to:

- take measurements
- compare, classify and sort
- collect, record and present data

#### Music



- Singing songs that have a mathematical focus
- Using musical instruments to support **counting** activities

#### Art



- repeating patterns
- exploring symmetry in shapes and logos
- creating symmetrical patterns
- · using **shapes** in a collage

### PΕ



- Counting activities linked to throwing and catching
- Timing running activities using a stop watch
- Tabulating scores in team games
- Looking at movement **patterns** through dance
- Using the language of **position and direction**, such as turns, forwards, backwards

## Geography



- Collecting and interpreting a range of data
- Using directional language to describe locations and features on maps
- Linking co-ordinates to map work
- Exploring large numbers when looking at populations and distances
- Considering time zones

#### **Impact**

- Children who engaged and challenged
- Lessons that use a variety of resources and activities to support learning
- · Learning that is tracked and monitored to ensure all children make good progress
- Children who have gaps in their knowledge receive appropriate support and intervention.
- Children who are enthusiastic about learning maths and gaining an understanding of its importance in everyday life.
- Maths books that evidence that children are achieving well and take pride in their work

#### **Useful website links:**

All children have their own log ins for RM Maths and Times Tables Rock Star websites:

- o Online maths learning software for primary schools RM Easimaths
- o <u>Times Tables Rock Stars (ttrockstars.com)</u>

#### Other recommended sites include:

- Mathsframe has interactive games and resources for teachers/ children to use. <a href="https://www.bbc.co.uk/teach/supermovers/ks2-maths-the-times-tables-mash-up-with-bartley-bluebird-wolfie-wolf/zk4hd6f">https://www.bbc.co.uk/teach/supermovers/ks2-maths-the-times-tables-mash-up-with-bartley-bluebird-wolfie-wolf/zk4hd6f</a>
- Transum.org/software
- www.hamilton-trust.org.uk

#### How you can support your child in Maths:

- Have regular talks with your child about the work they are doing in Mathematics
- When engaging in practical activities at home, involve your child, e.g. cooking (weight, time, etc.), putting up shelves (measurement, problem solving)
- Reinforce time by asking the time and asking how long until
- Always be positive about Mathematics and about your child's achievement

Please keep in touch with the school should you feel your child is struggling or needs more challenge – let us know.

To find out more about our Maths curriculum, please email your questions to: <a href="mailto:office@beormund.southwark.sch.uk">office@beormund.southwark.sch.uk</a>