The Park Federation Academy Trust
Lake Farm Park Academy

Mathematics Policy

Approval

Signed by Principal/Chair	
Date of approval	
Date of review	

Contents

Section 1: Introduction

Mathematics 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, and a sense of enjoyment and curiosity about the subject. This policy outlines the teaching, organisation and management of mathematics at Lake Farm Park Academy.

Section 2: Aims and objectives

Mathematics teaches us how to make sense of the world around us through developing a child's ability to calculate, reason and to solve problems. It enables children to understand and appreciate relationships and pattern both in number and space in their everyday lives. Through their growing knowledge and understanding, children learn to appreciate the contribution made by many people to the development and application of mathematics.

Intended outcomes of teaching mathematics are:

- To promote enjoyment and enthusiasm for learning through practical activity, exploration and discussion.
- To develop logical thinking, problem solving and reasoning skills through a natural curiosity and investigative approach.
- To nurture positive attitudes, confidence and competence by matching the task to the child.
- To celebrate achievements through high quality feedback. Peer and self-assessment are an integral part of this feedback and children are taught the skills needed to effectively do this throughout the academy
- To encourage the children to apply their learning to everyday situations so that children understand the importance of mathematical skills in everyday life.
- To explore features of shape and space, and develop measuring skills in a range of contexts placing importance on these skills.
- To consistently emphasize and develop use of mathematical vocabulary.
- To develop a practical understanding of the ways in which information is gathered and presented, including opportunities to record independently.
- To challenge children through high expectations and equip children with the skills needed to rise to the challenge.

The New National Curriculum for Mathematics describes what must be taught in each Key Stage as well as defining a programme of study for each year group.

In Early Years, the curriculum is guided by the Early Learning Goals and the ELG statutory framework.

Cross-Curricular Links
Mathematics is taught as a subject and through maths investigation lessons but every effort is made to link maths with other areas of the curriculum. We try and identify the mathematical possibilities across the curriculum at the planning stage. We also draw children's attention to the links between maths and other curricular work so children see that maths is not an isolated subject. In the Early Years, these links are more evident because of the less formal timetable.

Section 3: Teaching of Mathematics

Lessons have a flexible approach to ensure the pitch and pace suits the children. Teachers use their own judgement in how to approach teaching a concept and will incorporate group, paired or individual work as appropriate. In the EYFS the children work in small and large groups depending on the focus for the week. Maths activities are accessible at all times during child-initiated learning.

Pupils engage in:

- The development of mental strategies
- Written methods
- Practical work
- Investigational work
- Problem-solving
- Reasoning
- Mastery practise
- Mathematical discussion using precise mathematical language.
- Consolidation of basic skills and routines

The Foundation Stage
Mathematics in Foundation stage is initially developed through stories, songs, games and imaginative play. A positive approach to Numeracy around the classroom helps the children to begin to relate mathematics to their everyday lives.

The EYFS learning environment includes visual images, models and number resources to stimulate interest.

We give all the children ample opportunity to develop their understanding of number, measurement, pattern, shape and space, through varied activities that allow them to enjoy, explore, practise and talk confidently about mathematics. Mathematical resources are readily available both indoors and in the outside learning environment.

Key stage 1 and 2
All classes have at least four maths lessons a week and an additional maths investigation lesson. Whenever it is appropriate other lessons will be used to develop and apply maths skills (e.g. opportunities can be planned for measuring and data collection in science work). The pupils in each year group in KS1 are taught in mixed ability classes and are provided with differentiated activities to ensure tasks are set according to their individual levels.

At Lake Farm Park Academy, we follow the Singapore Maths scheme of work. The teaching of mathematics provides opportunities for: group work, paired work, whole class teaching, individual work.

Resources
Pupils should engage in activities from a variety of sources – practical apparatus, worksheets, textbooks and the environment. Through regular and frequent access to computers and iPads they will experience the fascination of mathematical exploration and investigation. They should also have the power to solve real and challenging problems. Each classroom has a variety of teaching aids to support mathematics.

Classes have access to a wide variety of equipment including, multilink, Numicon, Cuisenaire rods, number lines as well as measuring and weighing equipment. Pupils are encouraged to choose resources which are relevant to their work, take care of and return them.

Section 4: Assessment, Recording and Reporting

To develop learning, pupils will be continuously assessed using a variety of strategies - observation, questioning, marking in accordance with our Marking & Feedback Policy. In the EYFS, pupils will be assessed and the Foundation profile completed throughout the year.

In KS1 children are tested using a range of set tasks designated as appropriate to test individual pupils, groups or a whole class on an individual or range of attainments. Statutory Assessment requirements will be administered in accordance with the law at the end of KS1 and KS2.

Each term all children will sit a PUMA test (Progress in Understanding Mathematics Assessment). This will enable us to reliably assess, track and predict pupil progress in maths across the primary years. All federation schools will be sitting the same tests termly.

Each pupil will have targets set and checked regularly. These will link to the learning objectives for that year group. Parent's consultations are held each term where the teacher discusses children's targets and progress in mathematics.

In accordance with statutory requirements an Annual Report is sent to parents towards the end of the Summer Term. This report covers progress and achievements in mathematics, including the setting targets for future improvement.

Section 5: Roles and Responsibilities

The Principal

- To actively support and encourage staff, praising good practise and supporting staff development, in-service training and resources.
- To monitor teaching and learning through lesson observations, climate walks and book review analysis and to give informative and constructive feedback.
- Support staff development through training and provision of resources.

Maths Coordinator

- To work with the Principal and the Senior Leadership Team to monitor, plan and develop the subject to allow for progression, continuity and high standards of attainment in Mathematics.
- To support colleagues in the teaching of Mathematics and provide a strategic lead and direction in the subject.
- To manage periodic book reviews to ensure the curriculum is being covered and the marking policy is adhered to.
- To monitor progress in Mathematics, highlight and plan actions required.
- To take responsibility for auditing and organising Mathematics resources.
- To keep up to date with developments in Mathematics education and to inform colleagues as appropriate.
- To draw up annual action plan for Mathematics.
- To review the school policy for Mathematics as appropriate.

The class teacher

- To be responsible for the planning and teaching of Mathematics
- To manage and supervise their class' use of Mathematics equipment.

Section 6: Inclusion

We will provide an inclusive curriculum which will meet the needs of all pupils, where the teaching and learning, achievements, attitudes and well-being of every learner matters. All children have equal access to the curriculum regardless of their gender or background. This is monitored by analysing pupil performance throughout school to ensure that there is no disparity between groups. Intervention is provided to ensure that all children achieve their full academic potential, including gifted and talented.

Children with Special Educational Needs are taught within the daily mathematics lesson. Where applicable, children's IEPs incorporate suitable objectives. We provide help for those children who use a means of communication other than spoken English in developing and understanding specific mathematical language.

Section 7: Evaluation

The Mathematics Policy will be reflected in our practice. This will be monitored and evaluated by the Principal, the Senior Leadership Team and the Maths Coordinator in the form of lesson observations, discussion and regular scrutiny of planning and of pupils' work.