



Lakeside
Community Primary School

LCPS

Mathematics Policy



2017-19

Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It 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, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.

Aims of the new national curriculum

The national curriculum for mathematics aims to ensure that all pupils:

become **fluent** in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.

reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language

can **solve problems** by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

(New National Curriculum July 2014)

Aims of teaching maths at LCPS

"Reaching for the stars"

The teaching of mathematics at Lakeside Community Primary school. School is geared towards enabling each pupil to develop their learning without labelling them by ability. We endeavour to not only develop the mathematics skills and understanding required for later life, but also an enthusiasm and fascination about maths itself.

We aim to increase pupil confidence in maths so they are able to express themselves and their ideas using the language of maths with assurance.

We recognise the importance of developing factual, procedural and conceptual knowledge. We are continually aiming to raise the standards of achievement of everyone at Lakeside Community Primary School.

The new national curriculum

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 40-60 months Statutory Framework. This is mapped for each year group over the year as a maths programme. An objective is chosen and this is taught through our medal system through the week.

Teaching methods and approaches

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. (Further teaching guidance is contained in the Big Maths calculation policy) In EYFS the children work as a whole class for 20 mins as a class daily. They then have a guided task for 20 mins with a teacher once a week; EYFS follow the Little Big Maths Programme

Pupils engage in:

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

Children have a daily mental maths session called CLIC. Children acquire the basic skills of Mathematics through the chronology of CLIC. When we look at Core Numeracy in more detail we see that it has a 4 stage process to it:

Counting

children learn to count and to 'count on'.

Learn Its

children then short-cut this counting by recalling their 'counting on' as facts.

It's Nothing New

children then 'swap the thing' to realise that the counting fact, or 'Learn It', can be applied to any object, amount or unit of measure.

Calculation

the previous 3 phases are combined to provide a calculation structure.

Display

We recognise the importance of displays in the teaching and learning of mathematics. Every class displays relevant mathematical information . This is appropriate to the age of the class. These may include number lines, number grids, vocabulary and other display materials that provide a visual support for the children’s mental processes.

Maths medal system

At LCPS pupils have an hour a day for mathematics using our maths medal system. At the beginning of a new objective each pupil completes a “prove it” task as a pre-learning indicator to identify which level they need to begin with. There are a total of six medals to achieve within the weekly objective. The medal system begins at bronze level and progresses through silver, gold, platinum, mastery and investigation. The levels slowly increase in difficulty as pupils move up the system, requiring them to use more independent skill and reasoning to complete their work successfully. The aim is for children to achieve at least the gold medal by the end of the week as this is judged as the age expected task for each year group. As an additional assessment tool each pupil completes a post-learning “prove it” to showcase their understanding and reasoning skills for each medal level, ensuring they are ready to progress to the next level of work. The medal scheme has proven to motivate pupils and makes it clear to all learners what level their learning is currently at and what they need to do to progress.

Assessment

Please see assessment policy.

Reporting

All parents receive an annual written report on which there is a summary of their child’s effort and progress in mathematics over the year. This is led by the children who identify their own successes and challenges throughout the year.

At the end of KS1 and KS2, each pupil’s level of achievement against national standards is included as part of their annual written report.

Resources

Resources for the delivery of the maths curriculum are stored both centrally and in classrooms. Everyday basic equipment is kept in classrooms. Additional equipment and topic-specific items are stored in other areas.

Lakeside Community Primary School uses a variety of published materials to facilitate the teaching of mathematics but recognises the need for the teaching of maths to be ‘scheme assisted not scheme driven’.

Materials are constantly updated, as new and relevant items become available. The maths subject leader orders new resources after consultation with the staff.

Homework- please see homework policy

The Role of the Mathematics Leader

The maths lead will decide on the focus for developing the teaching and learning at Lakeside. The maths lead will support and guide staff in their teaching of Mathematics.

Other aspects of the role include:

- Yearly reviews of the policy for staff/governors discussion
- Offering advice
- Help in planning
- Yearly mathematics action plan
- Leading staff meetings
- Organising and delivery of Mathematics INSET
- Ordering and co-ordinating resources
- Monitoring of teaching and learning of Numeracy
- Monitoring of Mathematics Assessment

Evaluation

Evaluation and review of the policy for Mathematics takes place on an annual basis.

J Fowler
Mathematics Lead LCPS June 2017
Review date June 2019