



CHALKWELL HALL INFANT SCHOOL

MATHEMATICS POLICY

Reviewed and Approved by Governors

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MATHEMATICS POLICY

Aims

We aim to empower all children to confidently and independently access all areas of the mathematical curriculum which underpins their future learning journey towards the basic skills they will need in adulthood.

Objectives for the children

Taken from the National Curriculum we strive for all children to:

- Become **fluent** in the fundamentals of mathematics, including, through varied and frequent practice, 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.
- **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.

We do this by:

- Building on the children's prior knowledge of mathematics;
- Linking mathematical concepts to real-life situations;
- Providing opportunities for the children to investigate, discover and explain patterns, rules and generalisations for themselves through the use of the Maths No Problem! Scheme;
- Encouraging children to explain and evaluate their choice of equipment or strategy;
- Making mathematical lessons fun, engaging and practical.

Teaching and Learning

We follow the maths scheme Maths No Problem! This is a comprehensive programme that is designed to carefully build up key mathematical concepts adapted from the maths mastery approaches used in Singapore. It has been adapted to follow the National Curriculum.

This approach believes that every child can master an understanding and love of maths with the right kind of teaching and support. Its philosophy follows the CPA (Concrete, Pictorial, Abstract) approach which is a highly effective method of teaching that develops a deep and sustainable understanding of maths in pupils. It is an essential technique within the Singapore method of teaching maths for mastery.

All KS1 children will follow this approach, with appropriate differentiation used to support or extend individual children. Children work in mixed ability classes without the need for setting. This method uses concrete materials to aid the learning process and promotes problem solving and group work.

The teaching structure allows for consecutive lessons to be followed to ensure consistency and appropriate challenge within each class and year group. This becomes the basis for the medium term and weekly plans.

In the EYFS (Early Years Foundation Stage) use the principles of Singapore Maths by using concrete and visual materials to teach key concepts, as well as following their own curriculum. The children are also challenged further through questioning to develop mastery.

Problem solving is an integral part of daily lessons, enabling and empowering children to learn for themselves to achieve a greater depth and mastery in the subject.

A principal focus in mathematics is ensuring all children develop confidence and mental fluency with whole numbers, counting and place value. These skills are also embedded within the daily planning. These sessions focus on all children participating in the rapid recall of number facts.

We hold daily 'Maths Meetings'. These are 10 minute, whole class daily maths activities. The purpose of these are to give pupils repeated practise and opportunities for retrieval of basic skills and facts, as well as providing an opportunity for pre-learning of concepts not yet taught.

Assessment

There is an ongoing cycle of assessment for learning to enable every child to achieve his/her potential. Children are encouraged to discuss their thinking with learning partners, take an active role in assessing their achievements and be aware of what they need to do next. Teachers assess a child's progress on a daily basis, informing them whether a child is currently on track to achieve the expected level at the end of their year.

Teachers regularly communicate progress in mathematics to parents at consultation sessions and formally in the ~~mid-year and~~ end of year reports.

Marking and Feedback in Mathematics

Marking should concentrate on important mathematical aspects, such as misconceptions and recurring errors. Prompts or comments to help pupils to see where they have gone wrong such as a pink dot are most beneficial within a lesson so the child can address any problems immediately, or time is given the next day. Open questions may be asked to develop and deepen a pupil's understanding. Regular opportunities for discussion of answers and strategies help to support this. Giving children the opportunity to mark their own work within a lesson also allows for increased ownership over mistakes.

Inclusion

Through careful planning, delivery and assessment we ensure that all pupils of any gender or ethnicity gain basic skills in mathematics. All pupils are given access to the whole mathematics curriculum and are presented with a wide range of mathematical experiences that challenge their ability to explore ideas and develop their mathematical thinking. Individual Support Plans will include, where appropriate, specific targets for an individual to work towards.