CHALKWELL HALL INFANT SCHOOL

MATHEMATICS POLICY

Reviewed and Approved by: Achievement, Teaching & Learning Committee

Date: 20th October 2016

Review date: Autumn 2019
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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 have adopted a maths scheme called 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. This method uses concrete materials to aid the learning process and promotes problem solving and group work.

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. The teaching handbooks allow for consecutive lessons and a prepared structure 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) teachers use the principles of Singapore Maths by using concrete and visual materials to teach key concepts. The children are also challenged further through questioning to develop mastery.

Maths No Problem! follows the National Curriculum so we will continue to focus on developing fluency with numbers and place value and applying these to the four operations of addition, subtraction, multiplication and division. We will also cover aspects of shape, space and measures. This includes recognising, describing and comparing different shapes, using a range of measures including length, mass and capacity, as well as time and money.

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 principle 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.

All children will be taught, when appropriate, how to present their work in books. This will include writing a date and title, underlining using a ruler, and demonstrating appropriate layout and presentation.

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 talk 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. Questions may be asked ‘what if..?’ ‘try this’ to develop and deepen pupil’s understanding. Regular opportunities for discussion of answers and strategies help to support pupils’ reasoning and check and deepen their understanding. 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.