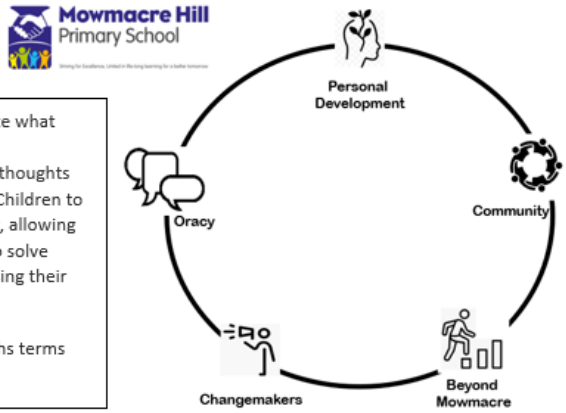
## Mathematics Curriculum Intent

Our aim of teaching mathematics at Mowmacre Hill is 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.
Children are encouraged to reason mathematically by following a line of enquiry, speculating relationships and generalisations, and developing an argument, justification or proof using mathematical language.
They are taught to solve problems by applying their mathematical skills 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 stress the importance of knowing multiplication tables. By the end of year 4, pupils should have memorised their multiplication tables up to and including the 12 times tables.**
All pupils are taught to develop efficient strategies for mental and written calculations which are clearly outlined within our Trust policy.
Pupils should read and spell mathematical vocabulary, at a level consistent with their increasing word reading and spelling knowledge.

## Curriculum Drivers

**Personal Development**- All pupils should become fluent in the fundamentals of maths, through varied and frequent practice, so that pupils develop conceptual understanding and are able to recall and apply their knowledge rapidly and accurately to problems.




**Oracy**- Children should be able to articulate what numeracy is to maths. Have the ability to communicate verbally and structure their thoughts so that they make sense to other people. Children to focus on presentational and dialogic oracy, allowing them the ability to use spoken language to solve problems and negotiate solutions while using their language for clear communication.

When we think in maths, we speak in maths terms and express mathematical meanings.

**Community**- Applying mathematics in the workplace and community will be explored during community fundraising and our Mowmacre Hill Aspirations week where the children explore different employment avenues and roles.

**Changemakers**- Children will become aware of different mathematicians through the use of a variety of mathematical strategies and concepts.

**Beyond Mowmacre**- Learning mathematics and developing analytical thinking skills. Improving problem solving abilities. Problem solving and analytical skills are highly desired in many jobs. Children will have a greater chance finding a job by developing these skills. Careers in mathematics are growing and so are their annual salaries.

## Implementation

Mathematics is taught daily. Teaching methods include discussions between teacher and pupil, discussions between pupils, practical work, group activities, individual work, practice of basic skills and routines and investigative work.

Teachers begin lessons with a 'hook' to engage children in learning. This sets the objective within a real-life context problem (picture, scenario, story). The teacher uses modelling and demonstrating through images/manipulatives/ ICT using clear mathematical vocabulary. Children have the opportunity to investigate new learning with the use of concrete apparatus and visuals to enforce the concept. Children practise the new skills using carefully crafted and varied questioning. The problem will be revisited, and children can then apply their new learning to solving the problem. The children will have the opportunity to feed back their learning. Those children who are 'rapid graspers' will either be challenged with deeper thinking questions, asked to show their understanding in different representations or through writing own word problems/ explanations/application of skills. A progress assessment is carried out daily which informs teachers of pupils who may need additional support with certain areas within the mathematics curriculum.

At Mowmacre Hill, we use Maths No Problem resources as we are committed to ensuring that every child develops an understanding and love of maths. With the right kind of teaching and support we can ensure this happens. This is heavily extended through additional mastery materials including Power Maths, White Rose Hub schemes of learning, NRich, Shanghai Maths textbooks, Testbase online and the Maths Hub specialist resources for embedding a mastery approach.

In the Early Years Foundation Stage (EYFS), we relate the mathematical aspects of the children's work to the Early Learning Goals (ELG), as set out in the EYFS profile document. Mathematics development involves providing children with opportunities to experience Maths Mastery through number sense, where they develop a deeper understanding of numbers to 10, including skills such as addition, subtraction, doubling and sharing. We continually observe and assess children against these areas using their age-related objectives and plan the next steps in their mathematical development through 'In the Moment Planning'. There are opportunities for children to encounter Maths throughout the EYFS (both inside and outside) – through both planned activities and the self-selection of easily accessible quality maths resources or through everyday maths problems that they may encounter through their play. Whenever possible children's interests are used to support delivering the mathematics curriculum.

## Impact

Our mathematics curriculum is based upon 'Maths No Problem' resources which are fully supported by the Department for Education as they meet the requirements of the new curriculum. The Maths No Problem primary school series has been created specifically for children living in the UK and is fully aligned to the 2014 curriculum. It provides all the elements that teachers need to teach Maths mastery with confidence and encourage children to talk using maths language. We measure our impact of our curriculum through the following methods:

- A reflection on standards achieved against the planned outcomes
- Summative assessment (Rising Stars NTS assessments) which takes place at the end of each term and children's progress and attainment is discussed with senior leaders in pupil progress meetings.
- Formative assessment takes place daily and teachers adjust planning accordingly to meet the needs of their class. The teaching of mathematics is monitored by leaders through lesson observations and book scrutinies.

As part of a multi-academy trust, we are fortunate to be able to call on the support of other Maths leads and specialist teachers. Through moderation, we can be sure that progress is made across all year groups. If progress is not being made, support is immediate, and steps provided to ensure all pupils achieve and make progress.