

Maths at Heathfield



Intent

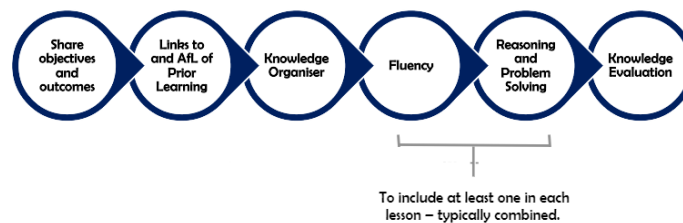
Our intent for maths at Heathfield is to provide all children with the necessary tools to be proficient, competent and confident with all aspects of the National Curriculum. We aim to foster enthusiasm towards maths by developing pupils' confidence in using mathematical equipment and vocabulary and through developing mental strategies. We plan opportunities in every lesson to help build the foundation for understanding number, reasoning, thinking logically and problem solving with resilience so that all children are fully prepared for the future.

Implementation

Our long term planning follows the National Curriculum. Short term planning is supported by the use of the White Rose Maths Hub materials and our school calculation policy. We subscribe to a number of additional planning resources (such as ISeeReasoning and Problem Solving, TTRS and NumBots, Classroom Secrets and Prodigy) to ensure that a range of representations are readily available that are designed to engage and inform our children.

Lessons are taught in single year, mixed ability groupings as we have a strong 'no ceiling' approach to our teaching. In addition to the timetabled lessons for each phase, extra support is given to children not making the required progress through interventions.

Each unit in maths follows the same sequence of learning to ensure the coverage of the key elements that form the backbone of the maths curriculum:



Within each lesson, this sequence is further disseminated to ensure that each lesson provides each of the elements of maths that our intention sets out. This also ensures that our teaching is consistent across the different year groups.



SEND Provision and differentiation

To ensure all children are able to access the maths curriculum, teachers use a range of strategies to support the inclusion of children with SEND. This includes the differentiation of objectives and activities, the use of smaller steps to support progress and the use of tailored resources.

Assessment

Assessment for learning forms an integral part of the teaching of maths, to gauge understanding, address misconceptions, stretch the learning of higher ability pupils and inform next steps. Feedback is given daily on children's learning in line with our school feedback policy. Formative assessment within every lesson helps teachers to identify the children who need more support to achieve the intended outcome and who are ready for greater challenge. In order to support teacher judgments, children are assessed termly using the Rising Stars assessments – PUMA tests (Progress in Understanding Mathematics Assessment). Analysis of these tests is undertaken and fed into future planning as well as being used to select appropriate interventions to support with learning.

Impact

The impact of our mathematics curriculum is that children understand the relevance and importance of what they are learning in relation to real world concepts. Children view maths positively and are able to investigate and ask questions to broaden their knowledge. Our children can choose the relevant scaffolds to support their learning and can make links with prior learning, using these to inform their decision making and strategy selection in each lesson. Children know what their strengths and areas for development are and how they can achieve these. Children can demonstrate quick recall of facts and strategies, including the recollection of times table facts and basic number fluency, as well as demonstrating fluency for each concept, the ability to reason and effectively problem solve. It is evident through books, displays and classroom environments that we have high expectations for each and every child regardless of their starting point. Children take pride in their work and have a resilient attitude towards mathematics. Our assessment, both summative and formative, and feedback support children to take the next steps with their learning so that children know exactly what they need to do next to better their understanding.

How the Heathfield Pledge is delivered through Maths

Happy, safe and confident

- Maths naturally provides opportunities for metacognition skills
- Repetition reaps success
- Provides essential skills for the future
- Security in knowing the final answer is right or wrong for many mathematical questions

Eager to learn

- Practicality of subject
- Built upon year on year; children make connections to previous learning
- Application to real life, relatable contexts
- Easy to build in competition and engage in games

Aiming high

- Endless opportunity to challenge through open-endedness and problems
- Wide-ranging contexts many of which are applicable to real-life
- Increase in appreciation and prevalence of number fluency across school
- Starting high with maths mastery approach in EYFS

Taking care

- Reciprocity benefits all. Children who teach, learn. Children who learn, learn!
- Taking care of own and others, challenging others to be their best and achieve to their best
- Promotion and application of the word hard, believe, practice approach – confidence boosting!

Healthy attitudes

- Learning from mistakes, accepting the importance of this
- Future financial security
- Understanding and supporting financial security of family
- Openness to apply metacognition skills – reflectiveness, reciprocity, resilience and resourcefulness

Focused on enrichment

- Application across subjects and enrichment.
- Increasing maths confidence through after school activities (Boosters, clubs etc.)

Including everyone

- Inclusivity of all children. Children have opportunity to access the curriculum of their year group and opportunities to catch-up when required
- Consistency of ethos and quality of mathematics across school

Environmentally aware

- Maths within the environment
- Importance of statistics in changes of policy (E.G. protecting the environment)

Living in harmony

- Awareness and support of those who struggle mathematically
- Recognising the value in equality

Developing global citizens

- Impact of subject in current and future generations
- Introduction into careers of the now and the future

How does Maths link to other subjects?

The core elements of fluency, reasoning and problem solving are relevant to all subject areas. Subjects such as science and PE are reliant on the incorporation of using mathematical skills such as measuring and time. Additionally, mathematics provides an effective way of building mental discipline and resilience in to our children's attitudes which filters through in to all subject areas. The integration of maths in to other subjects allows children to think about the real world and provides a context to their learning.

What can Maths inspire children to be in the future?

Mathematics is a stepping stone to careers in science, technology and engineering – jobs of the now and the future. Maths provides unlimited opportunities for great success and access to jobs with great financial gain. Number and finance will always have a background in any chosen career, therefore we have no limit as to what our teaching of maths could inspire our children to be when they are older. Having the necessary qualifications and the fundamental skills of maths at their disposal, children can pursue their interests in technology, the arts or business.