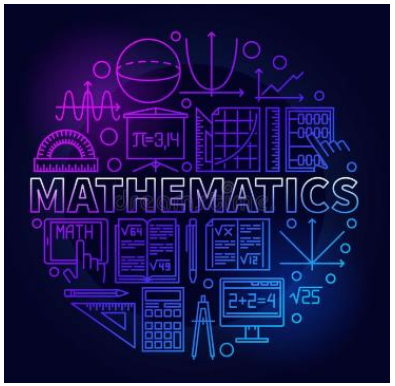
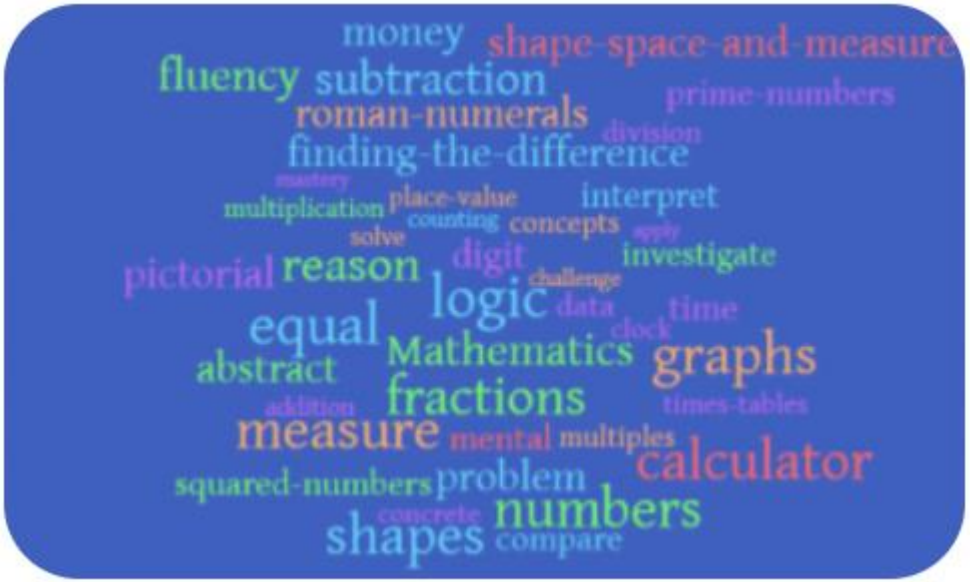


Maths

At

Kingswood Primary Academy



VALUES	RESPECT Our Environment & Community RESPECT Each Other RESPECT Yourself
INTENT	At Kingswood Primary Academy, we aim to provide all pupils with a stimulating and inclusive educational environment in which everyone feels safe, respected and supported to grow and develop to their full potential. Our purposeful curriculum is therefore designed to give children the entitlement to: • **Knowledge** - develop a rich and deep subject knowledge • **Skills** - secure basic skills in reading, writing and maths • **Nurture** – be supported to grow and develop new skills and independence through a variety of contexts and enrichment experiences • **Curiosity** -be curious learners who fully engage in learning, enjoying challenges and develop a lifelong thirst for knowledge • **Ambition** – become independent, responsible citizens who fulfil their potential and are prepared for life in modern Britain • **Diversity** - gain an understanding of fundamental British Values and use these to inform their own moral code 
SKILLS FOR LIFE	The curriculum entitlement supports the development of individual essential skills for life through the Skills Builder aspects: 1. Listening 2. Speaking 3. Problem Solving 4. Creativity 5. Staying Positive 6. Aiming High 7. Leadership 8. Teamwork 

Overview

Mathematics is an important creative discipline that helps us to understand and change the world. We want all pupils at Kingswood to experience the enjoyment of mathematics and develop a sense of curiosity about the subject with a clear understanding.

We foster a positive 'can do' attitude and we promote the fact that 'We can all do maths!' We believe all children can achieve in mathematics and that there is no ceiling to learning. We teach for secure and deep understanding of mathematical concepts through progressive tasks. Mistakes and misconceptions are considered an essential part of learning and teachers help children to view them as such. We believe that all children should be given the opportunity to be challenged and explore their mathematics more deeply. As such any child, no matter their current attainment, will receive extra challenges if they reach a good understanding of the current maths learning. All children will be given daily opportunities to reason, prove and problems solve.

Intent

Our intent for mathematics at Kingswood Academy Primary is to promote great learning and development amongst all pupils. We aim to ensure that good progress and standards of achievement are high for all pupils.

We aim to teach a rich, balanced and progressive curriculum using maths to reason, problem solve and develop fluent conceptual understanding in each area. Our curriculum allows children to make better sense of the world around them by making connections between mathematics and everyday life. Our policies, resources and schemes support our vision and clearly outline where maths can be incorporated across different curriculum areas.

We aim to ensure that mathematics is a high-profile subject which all children view positively. We want them to be passionate and enjoy learning mathematics, which comes through a growing belief in their own ability to achieve success in the challenges they undertake. We want all children to develop a resilient, determined attitude and become independent learners that are ready to progress to the next stage of their learning.

We aim for all pupils to:

- Become fluent in the fundamentals of mathematics so that they develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- Be able to solve problems by applying their mathematics to a variety of problems with increasing sophistication, including in unfamiliar contexts and to model real-life scenarios.
- Reason mathematically by following a line of enquiry and developing and presenting a justification, argument or proof using mathematical language.
- Have an appreciation of number and number operations, which enables mental calculations and written procedures to be performed efficiently, fluently and accurately to be successful in mathematics.

IMPLEMENTATION

Our whole curriculum is shaped by our school vision, which aims to enable all children, regardless of their background, ability and additional needs, to flourish and become confident and motivated learners.

Our curriculum is frequently reviewed to ensure that it is current and effective. Teachers are supported and aided in their teaching of mathematics through appropriate, high quality and regular CPD, ensuring confidence in the skills and knowledge that they need to teach. CPD is provided by the subject leader, external courses and from a teaching and learning consultant for mathematics. All staff are encouraged to raise questions, seek support and request further training if needed in order to ensure all teachers' subject knowledge is to a high standard. Good practice is always shared between staff and all CPD is used to inform teaching and learning in school.

The structure of the mathematics curriculum across school shows clear progression in line with age-related expectations. Teaching curriculum content in blocks allows children to explore skills and knowledge in depth and gain a secure understanding of a particular concept. Key knowledge and skills are also revisited regularly, allowing repetition to embed learning. A concrete, pictorial, abstract approach provides children with a clear structure in which they can develop their depth of understanding of mathematical concepts.

Quality First Teaching and Maths Mastery are teaching and learning approaches that we use within a whole class teaching approach. We believe all children have the potential to succeed, and they should therefore have access to the same curriculum content. If at any point a pupil is struggling with a procedure, teachers will revert to a smaller, focussed group size to solidify their understanding or revisit the previous year's strategy.

Children are taught Mathematics for approximately 1 hour daily. As part this, we incorporate daily reasoning as an 'anchor task' to further children's conceptual understanding of problem-solving. These are often taken after looking at areas for development from summative assessment or as an opportunity to address misconceptions or to deepen understanding in the area of maths being taught at that time.

The National Curriculum is explicit in articulating the importance of children using the correct mathematical language as a central part of their learning (reasoning). New vocabulary is introduced in a suitable context (for example, with relevant, real objects, apparatus, pictures of diagrams) and explained carefully. High expectations of the mathematical language used are essential, with teachers only accepting what is correct. Vocabulary is displayed clearly on working walls and is referred to in every lesson.

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 know that maths is a vital life skill that they will rely on in many areas of their daily life. School leaders work in conjunction with each other to ensure that mathematical concepts can be revisited and practised in other curriculum areas. The opportunities for cross-curricular links are clearly evident in our bespoke progression maps.

Children have a positive view of maths due to learning in an environment where maths is promoted as being an exciting and enjoyable subject in which they can investigate and ask questions. Children know that it is reasonable to make mistakes because this can strengthen their learning through the journey to finding an answer.

Our maths books evidence work of a high standard in which children clearly take pride; the components of the teaching sequences demonstrate good coverage of fluency, reasoning and problem-solving.

Our feedback and interventions support children to strive to be the best mathematicians they can be, ensuring our children are on track or above. They make good progress as measured from their individual starting points and the age-related expectations of the National Curriculum.

Our vigorous use of PiXL tests in KS1 and KS2 evidence how precise knowledge gaps are successfully identified and targeted in maths lessons in order to ensure children's next steps are met. Our robust tracking of weekly arithmetic scores outlines the progress the children make and supports identifying common errors and misconceptions. This ensures that teaching is continually informed by assessment.

The impact of our mastery approach and emphasis on the teaching of mathematical vocabulary is evident through class/ pupil discussions and within the classroom environment.

SEND

At Kingswood Primary Academy, we are committed to supporting all learners, including those with Special Educational Needs and Disabilities (SEND). Our approach emphasises quality first teaching and is underpinned by the mastery maths approach, which are supported by the big 5 ideas (representation and structure, fluency, mathematical thinking, variation and coherence). At our school, we meticulously structure our planning to ensure it is layered and progresses in small, logical steps which breaks down learning into manageable chunks preventing cognitive overload. Central to our methodology is the concrete, pictorial, abstract approach (see an example in our calculation policy below), which fosters children's conceptual understanding of mathematics, ensuring every student can thrive and succeed.

Enrichment

At Kingswood Primary Academy, we take every opportunity to make learning fun, relevant and exciting. This includes taking part in our 'Maths & Munch day', where the children, along with their parents, dress as rock stars or come to school wearing clothing with a number on and enjoy lots of engaging games and activities aimed at promoting not only their timetable knowledge but wider mathematical skills.

Times tables implementation

- Weekly times tables homework is set on Times Tables Rock Stars (TTRS) to encourage all children to practice at home.
- Children have a regular opportunity to access TTRS within school.
- An update on the interclass TTRS competition will feature in assemblies regularly to raise the profile of times tables across school.
- The 'Most Valuable Players' are awarded with certificates.
- The 'Most Improved Player' is awarded with the TTRS champion of the week trophy.
- The long-term plan for the teaching of times tables across school, can be found in the links below.

SUBJECT LEADERSHIP AND DEVELOPMENT

Subject Strengths

- Knowledge of subject gaps and how these have been addressed.
- Staff knowledge of their curriculum – progression and sequence
- Pupil enjoyment of Maths and promote a 'can do' attitude.
- Collaborative approach to the planning – LTP/MTP with all staff
- Clear sequence of learning in planning and in pupil books that show the 'Kingswood Maths story' for each individual learner.

Areas to Develop

- Continue to develop use of concrete materials and resources.
- Continue to develop lesson activities for effectiveness to deepen learning.
- Continue to access specialist training from external providers to ensure the best and most current practise.
- Continue to make times tables a focus for the academy.
- Continue to develop academy website.

Monitoring

- T1 Focus – Book monitoring
- T2 Focus – Books/pupil voice
- T3 Focus – Book monitoring

CPD

- Maths Hub Mastering Number Embedding the Impact Community group.
- Maths Hub Teaching for Mastery work group.
- Education Endowment Foundation - Effectiveness Trial of Mathematical Reasoning.