

The King's C of E Primary Academy

Mathematics Policy

Policy Awaiting Ratification

This policy is rooted firmly in our desire to fulfil our Vision to enable us to continue
'Living Well Together'

Vision Statement

Growing confident and aspirational children who believe in themselves and contribute positively to their community and the wider world.

Mission

Our Mission is to ensure that:

- All children develop the **knowledge, skills and character** to live happy, healthy and successful lives
- All children are respected and treated with **equity**
- All children are taught to be **resilient** and **aspirational**, encouraging them all to achieve their full potential
- All children know that they have a positive role to play in the world and that their contributions are valued in the **community**
- All children are encouraged in their **personal, moral and spiritual** development within a Christian framework.

Our Core Values

Kindness

Learning respectfully alongside each other, helping each other to grow through our acts of kindness.

"Do for other people the same things you want them to do for you." **Matthew 7 v 12**

Friendship

United as a family we bring light to our community and the wider world.

"A sweet friendship refreshes the soul." **Proverbs 27 v 9**

Faith

Aspiring to learn with courage and faith, believing in God, ourselves and each other so that we can live life in all its fullness

“Faith can move mountains”. **Matthew 17 v 20**

Purpose of the Maths Policy

The King's is working hard to transform the teaching of maths working alongside the White Rose Maths Hub scheme. Our aim is to develop a whole new culture of deep understanding, confidence and competence in maths – a culture that produces strong, secure learning and real progress.

Inspired and informed by robust, world-class research and global maths experts, the White Rose Hub works with teachers and colleagues throughout the UK and internationally.

By building confidence, resilience and a passion for maths, The King's aim to show that whatever your prior experience or preconceptions, maths is an exciting adventure that everyone can enjoy, value and master!

Objectives

To 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.

To be able to reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language

To 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.

Teaching and Learning

Our planning for Maths, follows the White Rose Maths scheme of learning, which in turn follows the revised National Curriculum for Mathematics guidelines September 2014 and the Early Years Framework.

Maths is taught daily from Foundation Stage through to Year 6.

How and why do we teach children to count?

Throughout the child's journey through school, they will be introduced to an ever increasing vocabulary. They will be taught subject specific words and we foster an inquisitive attitude towards word and their meanings. In Years 1-6, children learn new words daily through lessons that they are then encouraged to use in their mathematical reasoning skills. The vocabulary lists can be found as **Mathematics vocabulary progressions** document on the website.

This approach to vocabulary enrichment is also used in the wider curriculum. Children are taught words that are revisited regularly so that they become part of the child's everyday lexicon.

We teach children how to count by teaching through various means. This begins in the Foundation Stage, using a concrete, pictorial and abstract process. This system works for the 4 main operations and continues throughout Years 1 to 6.

At The King's C of E Primary Academy, we aim to develop a love of mathematics and problem solving tasks. Further information about how we teach children to perform calculations can be found in our **Calculation at The King's C of E Primary Academy parents Information** sheet, located on our school website. On this information sheet are details about how the children will progress with the mathematical operations throughout the year groups. As a family can become actively involved in their child's mathematical development. The White Rose maths calculation policy can be found on a link attached to their website; <https://whiterosemaths.com/resources/primary-resources/primary-sols/>

The Maths lesson Process

Each Maths lesson will go through the same process from years 1-6. Each day the children will complete the Flashback questions. These are 5 questions which reflect on previously learning to ensure prior learning is always recapped and embedded to ensure the skills are not forgotten.

The staff team will then introduce the learning outcome and teach through a range of methods which will include all or one of the main processes for learning Maths (Concrete, pictorial and abstract). This teaching will normally be part of a presentation or interactive white board session, providing the children with the resources for them to be successful. The children will then attempt to answer a range of questions with the method which suits their needs. Questions will increase in difficulty throughout normally starting with simple equations, problem solving before moving onto reasoning questions where children need to articulate their answers displaying their mathematical knowledge.

Maths Areas

All class areas have a Maths area that children can select materials/equipment to help them within the lesson. The Maths areas are well-ordered and inviting to encourage children to independently select the resources required for each task. Within this area there will be a reasoning task of the day for children to answer at a convenient time using any method.

Each class area also has a Mathematics display which is a visual learning guide for key concepts to help children quickly answer questions using the skills previously taught.

How do we teach Multiplication tables?

We recognise the invaluable relationship between counting and multiplication tables. Once the multiplication tables are learnt in the first instance they can then be used to complete the inverse operation division. Good multiplication table knowledge is essential in order to be able to fully access the Maths curriculum. We use a range of media to stimulate children's knowledge but counting in numbers up to 12 will be taught discretely and overtly within lessons.

At the end of Year 4 children will take the multiplication tables assessment check. This is an online test of 25 questions and children have just 6 seconds to answer which means that all 12 tables need to be embedded and quickly recalled. To support this task and to regularly knowledge, all children have access to TTRockstars. This programme not only will be used in school but can be accessed at home as each child will have their own login which can be found in their planner.

We believe in quality first teaching which involves:

- highly focused lesson design with sharp learning intentions.
- high demands of pupil involvement and engagement with their learning.
- high levels of interaction for all pupils.
- appropriate use of teacher questioning, modelling and explaining.
 - an emphasis on learning through dialogue, with regular opportunities for pupils to talk both individually and in groups.
- an expectation that pupils will accept responsibility for their own learning and work independently.
- regular use of encouragement and authentic praise to engage and motivate pupils.

Inclusivity and Accessibility

At The King's C of E Primary Academy, we are committed to providing a fully accessible environment which values and includes all pupils, staff, parents and visitors regardless of their education, physical, sensory, social, spiritual, emotional, sexual orientation and cultural needs. We are also committed to challenging negative attitudes about disability and accessibility and to developing a culture of awareness, tolerance and inclusion.

We design our own units of learning, customising them to meet the needs of our pupils; including those who have learning difficulties and those who are gifted and talented. This ensures our teaching and learning meets the demands and interests of the full range of learners and keeps pace with changes. We challenge stereotypes and mitigate bias through the careful selection of resources and discussion areas.

Children with special educational needs and disabilities (SEND)

- teachers adapting planning so that individuals have specific learning outcomes.
- teachers working specifically with children with SEND.

- providing extra adult support in class so that children are focused on accessing the curriculum.
- meeting regularly in staff teams to discuss provision and if it needs to be adapted.
- liaising with outside agencies to receive the best advice on how to help children learn.
- adapting buildings and furniture if necessary so that children are not restricted from using the school fully.

Disadvantaged Pupils

Our moral purpose is also to do something extra for our disadvantaged children AND our big challenge is to make certain that our disadvantaged children make at least good progress compared to their peers. All our teachers recognise and accept that the vast majority of pupils' progress comes out of good teaching and learning on a day to day basis. As a school we receive funding for disadvantaged pupils. This is used to increase the attainment of pupil premium children, looked after children and armed forces children.

We ensure as a non-negotiable that:

- we all know who our disadvantaged children are.
- when planning these children have that little bit extra.
- we mark their work first when we are fresher.
- questions are directed at these pupils specifically at all times.
- we talk to these children about their learning constantly
- we monitor the progress of these children constantly

Differentiation

Differentiation is the process of matching learning tasks to particular groups or individuals. Teachers have to consider differences when planning and teaching lessons in order to ensure that all abilities in the class are catered for.

Assessment

Maths is continually assessed against children's individual assessment targets. These targets are linked explicitly to the Maths National Curriculum 2014. Progress is recorded using OTrack and specific skill tracking is maintained through The King's Assessment Progress Tracker. Samples of children's writing are kept by the Maths Subject Leaders in the Subject Leaders' online folder to show the expected level of achievement in each year group in the school.

Parents and Carers are informed of their child's Maths progress through midway reports, parents evenings and, at the end of the year, through the child's summative progress in their final report. We encourage a partnership with home by sharing the child's successes and next step targets so that the child's family is able to now ow best to support them further.

Monitoring and Evaluating

Monitoring the standards of children's learning and the quality of teaching in Maths is the responsibility of the Maths Subject Leader. The Maths Subject Leader monitors the quality of planning and outcomes, carries out learning walks when appropriate and a subject audit. The work

of the Maths Subject Leader also involves supporting colleagues in the teaching of Maths and keeping them informed about developments in the subject. This is monitored in turn by the Senior Leadership Team. Pupil Progress meetings are held each term to discuss the progress of each child.

Health and Safety

All staff are aware of the requirements of the school's Health and Safety Policy. Risk assessments are carried out for all activities, taking into account medical issues, where needed. Visits to off-school sites are arranged in line with the school visits policy.

Dissemination of this policy

The policy will be publicised to all teaching staff in a staff meeting and to all parents via the school website. Copies will be made available for all parents who request it.

Policy:	Maths
Written and agreed by:	David Jane and agreed by SLT
Date written:	April 2021
Approved by:	The Governing Body
Date:	Policy Awaiting Ratification
Review cycle:	Bi-annually
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