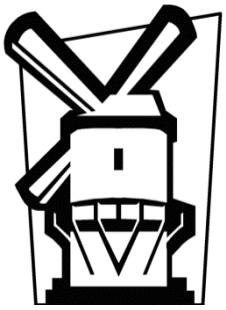
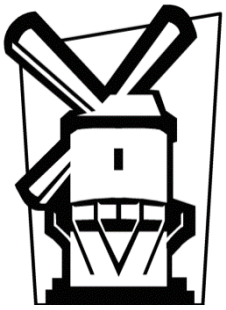
Great Paxton CE Primary School
Policy Statement on



Mathematics



Mission Statement

We build upon strong foundations of excellent teaching, with high expectations of children's achievements, encouraging all pupils to aspire to be the very best that they can be in the future.

We do this by:

being generous and visible people of Jesus Christ, helping our local community to discover together the transforming presence of God in our lives.

striving to provide and maintain for our pupils an education that provides opportunities so that they can explore and develop their own values and beliefs, spiritual awareness, high standards of personal behaviour, a positive caring attitude towards other people, an understanding of their social and cultural traditions and an appreciation of the diversity and richness of other cultures.

promoting the fundamental British values of democracy, the rule of law, individual liberty and mutual respect and tolerance of those with different faiths and beliefs.

Policy agreed: **Spring 2025**

Leader: **Headteacher**

Date for review: **Spring 2028**

Principles of the policy

Mathematics equips pupils with the uniquely powerful set of tools to understand and change the world. These tools include logical reasoning, problem solving skills and the ability to think in abstract ways. Mathematics is important in everyday life. It is integral to all aspects of life and with this in mind we endeavour to ensure that children develop a positive and enthusiastic attitude towards mathematics that will stay with them.

The National Curriculum for mathematics describes in detail what pupils must learn in each year group. Combined with our Calculation Policy, this ensures continuity, progression and high expectations for attainment in mathematics.

It is vital that a positive attitude towards mathematics is encouraged amongst all of our pupils in order to foster confidence and achievement in a skill that is essential in our society. We use the National Curriculum for Mathematics as the basis of our mathematics programme and use materials from White Rose Maths to support the teaching and Mathletics to support learning at home.

Aims

- To become fluent in the fundamentals of Mathematics through varied and frequent practice of increasingly complex problems over time.
- To develop the ability to recall and apply knowledge rapidly and accurately.
- To develop the ability to solve problems through decision making and reasoning in a range of contexts.
- To develop mathematical language through speaking and listening, practical activities and recording work.
- To foster a positive attitude to mathematics as an interesting and attractive part of the curriculum.
- To develop the ability to think clearly and logically, with confidence, flexibility and independence of thought.
- To develop a deeper understanding of mathematics through a process of enquiry and investigation.
- To develop an understanding of the connectivity of patterns and relationships within mathematics.
- To develop the ability to apply knowledge, skills and ideas in real life contexts outside the classroom, and become aware of the uses of mathematics in the wider world
- To develop personal qualities such as perseverance, independent thinking, cooperation and self-confidence through a sense of achievement and success.

Intent

Maths is a skill we use on a daily basis and is an essential part of everyday life. Therefore, mathematics forms an important part of our broad and balanced curriculum where we endeavour to ensure that children develop an enjoyment and enthusiasm for maths that will stay with them throughout their lives and empower them in future life.

We believe that unlocking mathematical fluency is an essential life skill for all learners and is a pre-requisite to being able to reason and solve problems mathematically.

Our aim is to develop a positive culture of deep understanding, confidence and competence in maths that produces strong, secure learning.

As a school, we recognise that the key to unlocking the potential in our children is through the development of basic mathematical skills and the understanding of mathematical concepts. We therefore place great emphasis on the use of concrete resources and pictorial representations at all ages, to enable children to fully understand the concepts and principals, when presented with abstract calculations and questions.

Our maths curriculum is progressive; at KS2 it is designed to develop competencies to equip pupils for KS3 where they will build on KS2, make connections and solve increasingly sophisticated problems.

Implementation

Our Maths curriculum provides breadth and balance, is relevant and engaging and is differentiated to match the needs and abilities of all our children to ensure that all pupils are able to excel.

As a school, we believe in the importance of following the concrete-pictorial-approach (CPA) as a means to developing a solid understanding of mathematical concepts which can be applied in a variety of contexts through reasoning and problem solving challenges.

From Reception to Year 6, we adhere to our calculation policy which outlines the progression of strategies and methods to be taught. From Reception to Year 6, children follow the scheme of 'White Rose' which supports children in learning the fundamentals behind the meanings of numbers and exploring other key mathematical areas. Progression documents such as our calculation policy are carefully used to ensure that children are not being stretched outside their year group but rather deepened within it.

Within daily teaching, children will be reminded/taught fact sentences linked to previous/current learning which will constantly be referred to within the lesson.

Daily assessment is incorporated throughout the lesson through live and verbal feedback. Termly assessments are used as a diagnostic tool to ensure that teachers are adapting learning to meet the needs of all children and ensure that any necessary interventions are targeted specifically to meet the needs of children.

Times tables play an important part in our maths learning, with children developing their fluency in rapid recall of tables up to 12 x 12 by the end of year 4. While the rapid recall of times tables are being developed, children are also learning how to apply and manipulate their understanding of this to reason and solve problems.

Impact

By the end of Year 6, transitioning to secondary school, we aspire that all children will have developed a bank of efficient and accurate skills that can be used to calculate effectively.

These will have been underpinned by the C-P-A process so children understand rather than just do, which ultimately will allow children to identify when answers do not make mathematical sense. Children will be able to apply these calculation skills and understanding of other areas to become confident and resilient problem-solvers with the ability to reason and articulate their ideas mathematically. Due to the embedding of fact sentences, children will have the language to be able to justify, reason and explain their answers.

Early Years

Developing a strong grounding in number is essential so that all children develop the necessary building blocks to excel mathematically. Children should be able to count confidently, develop a deep understanding of the numbers to 10, the relationships between them and the patterns within those numbers. By providing frequent and varied opportunities to build and apply this understanding - such as using manipulatives, including small pebbles and tens frames for organising counting - children will develop a secure base of knowledge and vocabulary from which mastery of mathematics is built. In addition, it is important that the curriculum includes rich opportunities for children to develop their spatial reasoning skills across all areas of

mathematics including shape, space and measures. It is important that children develop positive attitudes and interests in mathematics, look for patterns and relationships, spot connections, 'have a go', talk to adults and peers about what they notice and not be afraid to make mistakes.

KS1 and KS2

Through Years 1 to 6 we use a coherent programme of high-quality materials and exercises, which are structured with great care to build deep conceptual knowledge, alongside developing procedural fluency.

Our KS1 and KS2 teachers use White Rose Maths Premium resources, which they adapt accordingly. Children record their work in printed workbooks and respond to additional problem solving and reasoning questions in their maths book. They might also use their maths book to record key number facts and make representations of mathematical concepts.

Teachers also plan, modify and source activities and additional tasks which offer support and scaffolding where appropriate, and provide further challenge for children who are able to progress further in their learning.

Times Tables

The teaching of times tables facts should be planned as a series of lessons and consolidation should be part of the daily Maths lesson thereafter across all areas of Maths**.** Children should understand the times tables facts and related division facts. They should be able to explain methods used and patterns identified, using mathematical language.

The expectation is that children will know the following at the stated year group:

Reception	**1**	**and 10**
Year 1	**2**	**and 5**
Year 2	**3**	**and 6**
Year 3	**4**	**and 8**
Year 4	**up to 12 x 12**	

Assessment

Children receive effective feedback through teacher assessment, both orally and through written feedback, and Assessment for Learning is integral to the design of each lesson;

The structure of the teaching sequence ensures that children know how to be successful in their independent work. A daily fluency activity supports

children's recall of key number facts, which frees working memory. Teachers will make informed choices as to when they should progress to new content according to the degree of fluency that children are able to demonstrate.

Common misconceptions are identified and addressed within the teaching sequence and key understanding within each 'small step' is reviewed and checked by the teacher and the children before progression to further depth.

At the end of the lesson, the children review their work and self and peer assessment are used consistently.

Opportunities for additional practice and correction are provided by the teacher, as appropriate, during marking, with a focus on promoting and achieving a growth mindset approach in the subject.

Short term assessment is a feature of each lesson. Observations and careful questioning enable teachers to adjust lessons and brief other adults in the class if necessary. The lesson structure of a White Rose Maths lesson is designed to support this process.

At the start of a unit, a cold assessment is completed and this is repeated as a gold assessment at the end of the unit. This enables the school and pupil to see the progress that each child has made. The outcome of this is used by the teacher to ensure that any identified gaps in understanding can be addressed before the next unit is taught.

Each child's scores are also recorded, which provides an overview of achievement in each specific area within the programme of study. This also informs dialogue with parents and carers during meetings, as well as the judgements made at the end of the term as to the extent that each child has achieved the expectation for their year group.

Teachers administer a termly arithmetic paper and reasoning and problem-solving paper which specifically links to the coverage for that term. The results of these papers are used to identify children's ongoing target areas, which are communicated to the children, as well as to parents and carers.

Assessment data in maths is reviewed throughout the year to inform interventions and to also ensure that provision remains well-informed to enable optimum progress and achievement.

End of year data is used to measure the extent to which attainment gaps for individuals and identified groups of learners are being closed. This data is

used to inform whole school and subject development priorities for the next school year.

Special Considerations

We believe that we are an educationally inclusive school as we are concerned about the teaching and learning, achievements, attitudes and well-being of all our pupils. We aim to provide places for all pupils who express a preference to join this school.

We work hard to offer equality of opportunity and diversity to all groups of pupils within school such as children:

- From any gender;
- Who have Special Educational Needs;
- Who are looked after;
- From minority faiths, ethnicities, travellers, asylum seekers, refugees;
- Who are gifted and talented;
- Who are at risk of disaffection;
- Who are young carers;
- Who are sick;
- Who have behavioural, emotional and social needs;
- From families who are under stress

We believe we have a duty to ensure that all children have equal rights to the opportunities offered by education and that all children will be encouraged to fulfil their potential in their academic, physical and creative achievements.

We want to give all children the right to access high quality educational experiences, to take part in a broad and balanced curriculum and to be part of the social life of the school.

We recognise that within the school we have more able, gifted and talented children. We believe that:

- more able children demonstrate a higher ability than average for the class and often require differentiated tasks and opportunities to learn through challenges;
- gifted children are those who have the ability to do well in more than one subject;

- talented children demonstrate an innate talent or skill in creative, cultural or sporting fields

We have an even greater obligation to plan and deliver well-structured lessons with appropriate assessment plus ambitious targets for pupils who have low levels of prior attainment or come from disadvantaged backgrounds.

Also, we have a duty to cater for pupils whose first language is not English by planning teaching opportunities to help them develop their English and to gain full access to the National Curriculum.

Inclusion

Taking a mastery approach, differentiation occurs in the support and intervention provided to different children, not in the topics taught, particularly at earlier stages. The National Curriculum states:

'Children who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content. Those who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice, before moving on.'

There is little differentiation in the content taught but the questioning and scaffolding individual children receive in class as they work through problems will differ, with higher attainers challenged through more demanding problems, which deepen their knowledge of the same content before acceleration onto new content. Children's difficulties and misconceptions are identified through immediate formative assessment and addressed with rapid intervention – commonly through individual or small group support later the same day or within the lesson.

A range of inclusion strategies, disseminated by the SENCO, are embedded in practice and teachers are aware of the special educational needs of the children in their class, as well as those who have English as an additional language. Although the expectation is that the majority of children will move through the programmes of study at broadly the same pace, the 2014 National Curriculum states:

'Decisions about when to progress should always be based on the security of children's understanding and their readiness to progress to the next stage.'

If a child's needs are best met by following an alternative plan, including coverage of the content from a previous year, this will be overseen by the SENCO, in collaboration with the class teacher and with the knowledge of SLT. Specific arrangements for the provision of children with SEND will be communicated to parents and carers during SEND reviews.

Resources

Everyday basic mathematical resources are kept within each classroom for access freely. Other mathematical resources are stored centrally in the DEN. When using resources from the DEN teachers must ensure that everything is returned after use. If there are any breakages or resources have run out then the Mathematics coordinator must be notified so that orders can be placed. If new or additional resources are required then these can be ordered by the Mathematics coordinator subject to budget.

Role of the Subject Leader

The subject leader will raise the profile of Maths at Great Paxton CE Primary School through best practice. They will:

- Ensure the high quality of Maths displays around the school.
- Monitor progression and continuity of Maths throughout the school through lesson observations and regular monitoring of outcomes of work in Maths exercise books.
- Ensure that all staff have access to year group plans and the relevant resources which accompany them.
- Monitor children's progress through the analysis of whole school data. They will use this data to inform subject development plans which will detail how standards in the subject are to be maintained and developed further.
- Organise, audit and purchase central and class-based Maths resources.
- Develop opportunities for parents/carers to become more involved in Maths education.
- Ensure that all staff have access to professional development.

Equality Impact Assessment

Under the Equality Act 2010 we have a duty not to discriminate against people on the basis of their age, disability, gender, gender identity, pregnancy or maternity, race, religion or belief and sexual orientation.

This policy has been equality impact assessed and we believe that it is in line with the Equality Act 2010 as it is fair, it does not prioritise or disadvantage any pupil and it helps to promote equality at this school. (See Initial Equality Impact Assessment)

Linked policies

- Calculation Policy
- Assessment Policy
- Teaching and Learning Policy
- Marking Policy
- Maths Progression Document

Headteacher:		**Date:**	
Chair of Governing Body:		**Date:**	

Data Protection – Data Protection Act 2018 and General Data Protection Regulation 2018 (GDPR)

This policy has been produced in compliance with the Data Protection Act 2018 and GDPR. Further information is available in our Privacy Notice and Data Retention Policy which can be found on our website.

The person responsible for Data Protection in our organisation is Mr Lee Frost (Headteacher) and you can contact them with any questions relating to our handling of your data. You can contact them by email at office@greatpaxton.cambs.sch.uk or telephone 01480 472132

To read about your individual rights and/or to complain about how we have collected and processed data, you can contact our Data Protection Officer. If you are unhappy with how your query has been handled you can contact the Information Commissioners Office via their website.