St Alban's CE Primary School

Maths policy

November 2025

Renewed: November 2025
Reviewed: November 2026

Our school vision

Our vision is that all our pupils should grow in:

Faith in God, or be inspired by faith, and in their own ability to fulfil their potential,

Hope to be the best of examples, to work to change themselves and the world for the better, and

Love, reflecting God's love in unselfish love for others.

Our vision is based on the God given virtues of:

FAITH, HOPE AND LOVE

1 Corinthians 13:13

This policy sets out the approach to teaching and learning maths at our school. Our separate St Alban's Calculation Progression Guidance explains in detail how we teach addition, subtraction, multiplication and division. Our aim is to give the children a rich and balanced mathematics curriculum that develops their fluency, reasoning and problem solving – the key aims of our National Curriculum for mathematics.

1 Aims and objectives of maths policy

1.1 Mathematics is a significant part of modern society, helping us to understand science, technology, engineering and economics. Children who are confident and fluent mathematicians are well equipped to calculate, reason, solve problems and make decisions in a range of real-life contexts.

Good maths **learning** takes place when pupils are given opportunities to solve problems by developing their understanding, make links between different areas of maths and the rest of the curriculum and apply their skills to solve problems.

Good maths **teaching** enables good learning to take place. It involves creating a lively and stimulating environment in which children can respond to high levels of expectation and challenge. They are kept on the edge of their thinking.

1.2 The aims of mathematics are:

To ensure the best outcomes for all pupils through good or better teaching and learning so that they are numerate and ready for the challenges of secondary school.
All pupils make at least good progress from their starting points and achieve outcomes greater than the national average.
To set challenging targets which result in rapid progress for all.
To respond regularly to pupils' work, identifying misconceptions and extending learning.
To promote confidence, resilience, enjoyment and enthusiasm for learning through practical activities, exploration and discussion;
To use a broad range of approaches to engage and motivate pupils, expecting their active participation.
For all pupils to confidently understand the place value of whole numbers and decimals.
For all pupils to memorise, recall and apply number facts in times tables, doubles, halves and number bonds in order to be fluent mathematicians.
To develop the ability to solve problems through decision-making and reasoning in a range of contexts including enrichment opportunities in other areas of the curriculum and outside the classroom.

2 Teaching and learning style

2.1 Teacher's at St Alban's follow the Rosenshine Principles of Direct Instruction when teaching maths. This teaching method supports pupils retain knowledge in the working memory. Teachers begin every lesson retrieving prior knowledge. This ensures this knowledge is strengthened in the working memory. Teachers then present new knowledge in manageable chunks, modelling and scaffolding materials. They address pupil misconceptions on the spot and use these as a positive learning tool for further progress and understanding.

At St. Alban's we understand the importance of concrete resources all the through a pupil's education and these are always in accessible. We follow the model: concrete, pictorial and then abstract to support pupil's understanding of concepts. All pupils have access to concrete resources at every stage of their primary development.

Our principal aim is to develop children's fluency, reasoning and problem-solving skills in mathematics. Daily lessons incorporate elements of fluency, problem solving and reasoning. During these lessons children experience mental challenges, have opportunities to ask and answer mathematical questions as groups and individuals and take part in a whole-class session to review progress and learning. They have the opportunity to use a wide range of resources such as number lines, number squares, digit cards and small apparatus to support their work.
ICT is used in almost all mathematics lessons to enhance learning, through modelling ideas and methods. Children are provided with opportunities to apply their learning to solve problems in a range of contexts.

2.2 In all classes at St. Alban's there are children of differing mathematical ability. We recognise this fact and provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child. We achieve this through a range of strategies – in some lessons through differentiated group work, and in other lessons by organising the children to work in pairs on open-ended problems or games. When possible. we use classroom assistants and small focused groups to support some children and to ensure that work is matched to the needs of individuals. Some children are selected to work individually or in groups on intervention programmes, such as Number Box. All classes have after school "boosters" led by class teachers and leadership which are used to teach prior learning and vocabulary to support pupils in class. These groups are carefully planned using assessment data to ensure all pupils continue making progress at all stages.

3 Mathematics curriculum planning

3.1 Mathematics is a core subject in the National Curriculum, and we use the 2014 Primary Curriculum for Maths as the basis for implementing the statutory requirements of the programme of study for mathematics.

3.2 We carry out the curriculum planning in mathematics in three phases (long-term, medium-term and short-term). The 2014 Primary Curriculum for Maths gives a detailed outline of what we teach in the long term, while our yearly teaching programme identifies the key objectives in mathematics that we teach in each year. The school uses a range the **St Albans Planning Document** that was developed by the maths lead alongside the Camden Maths Hub. This is supplemented by White Rose Hub, Busy Ants, Maths Frame, Testbase, I See Reasoning, CPG and the NCETM and NRICH to assist teachers in both medium- and short-term planning.

3.3 Our medium-term mathematics plans, which are adopted from the Curriculum give details of the main teaching objectives for each term and define what we teach. They ensure an appropriate balance and distribution of work across each term. These plans are kept and reviewed by the mathematics subject leader. Teachers use the **St Albans Planning Document** as their prime resource to do this then tailor this to their pupils. They supplement areas where children may need more help with the other resources mentioned. Teachers in Year 6 and Year 2 may adapt the whole school curriculum map to ensure they have the appropriate coverage to prepare pupils for SATs. Furthermore, other year groups, may spend longer on topics depending on their class needs or revisit these in the future. Teachers keep a record of their coverage on their year group's planning document, noting areas that need to be revisited.

3.4 Class teachers complete weekly short-term plans for the teaching of mathematics. These weekly plans list the specific learning objectives for each lesson and give details of how the lessons are to be taught. It includes details of differentiation, vocabulary and prior knowledge to be revisited. The class teacher keeps these individual plans, and writes down next steps to inform the next day's planning. These plans may be completed as word documents, Ppts or flipcharts. Whichever format, teachers must ensure that they have covered all key areas in a lesson. The class teacher and mathematics subject leader often discuss them on an informal basis. Teachers may wish to take screen shots of tasks and reasoning challenges they plan to use in class and add these to the documentation.

4 The Foundation Stage

4.1 We teach mathematics in our reception and nursery classes. As the class is part of the Foundation Stage of the National Curriculum, we relate the mathematical aspects of the children's work to the objectives set out in the Development Matters and ELG, which underpin the curriculum planning for children aged three to five. Teachers use the document "Birth to Five", to assess and keep track of their children's learning. We give all the children ample opportunity to develop their understanding of number, measurement, pattern, shape and space through varied activities that allow them to enjoy, explore, practise and talk confidently about mathematics.

5 Contribution of mathematics to teaching in other curriculum areas

5.1 English

Mathematics contributes significantly to the teaching of English in our school by actively promoting the skills of reading, writing, speaking and listening. For example, we encourage children to read and interpret problems in order to identify the mathematics involved. The children explain and present their work to others during plenary sessions. Younger children enjoy stories and rhyme that rely on counting and sequencing. Older children encounter mathematical vocabulary, graphs and charts when using non-fiction texts. Furthermore, we encourage to reason using sentences, both verbally and written.

5.2 Information technology (IT)/ Computing

Children use and apply mathematics in a variety of ways when solving problems using IT. Younger children use IT to communicate results with appropriate mathematical symbols. Older children use it to produce graphs and tables when explaining their results or when creating repeating patterns, such as tessellations. When working on control, children use standard and non-standard measures for distance and angle. They use simulations to identify patterns and relationships.

5.3 Personal, social and health education (PSHEC) and citizenship

Mathematics contributes to the teaching of personal, social and health education, and citizenship. The work that children do outside their normal lessons encourages independent study and helps them to become increasingly responsible for their own learning. The planned activities that children do within the classroom encourage them to work together and respect each other's views. We present older children with real-life situations in their work on the spending of money.

5.4 Spiritual, moral, social and cultural development

The teaching of mathematics supports the social development of our children through the way we expect them to work with each other in lessons. We group children so that they work together, and we give them the chance to discuss their ideas and results. The study of famous mathematicians around the world contributes to the cultural development of our children.

6 Teaching mathematics to children with special needs

6.1 At St. Alban's we teach mathematics to all children, whatever their ability. Mathematics forms part of the school curriculum policy to provide a broad and balanced education to all children. Teachers provide learning opportunities that are matched to the needs of children with learning difficulties. Work in mathematics takes into account the targets set for individual children in their Individual Education Plans (IEPs). Intervention programmes are used to support individuals and groups using resources such as Number Box and Numicon. Furthermore, teachers consider the individuals needs of the child and life skills required in the future e.g. Money and time. These are carefully planned into SEND pupil's learning.

7 Assessment and targets

7.1 Targets are set for each year group and pupil at the beginning of each school year, based on prior assessment results. This information is stored and located on the school tracking system; Sonar Tracker. All pupil targets are discussed with class teachers at their PM meetings and are made in light of prior Key Stage attainment.

7.2 We make short-term assessments in pupils' books through regular marking and feedback which might include 'next steps' to help children progress. Marking is closely linked to the lesson objectives and is used to identify next steps in planning.

7.3 We use end of unit assessments and mastery assessment tools to measure progress against the key objectives, and to help teachers plan the next unit of work or address gaps.

7.4 Groups are assessed half termly using key objective sheets which teachers highlight according to progress. This helps determine gaps, areas which need to be revisited and objectives for medium term plans.

7.5 Pupils are assessed formally, termly, using test papers. These tests help to inform the overall teacher assessment judgements for that child, for that term.

7.6 Teachers may use weekly mental maths assessments to support their planning and provision for pupils.

7.7 We make final assessments towards the end of each year, and we use these to assess progress against class, school and national targets. We can then set targets for the next school year and make a summary of each child's progress before discussing it with parents. We pass this information on to the next teacher at the end of the year, so that s/he can plan for the new school year. We make these with the help of all of the tools mentioned above and ongoing teacher assessments. We use the new (2015) national tests for children in Year 2 and Year 6. We also make annual assessments of children's progress measured against the key objectives of the 2014 National Curriculum.

8 Resources

8.1 At St Alban's, we follow the Education Endowment Foundation guidance of the importance of concrete resources across all year groups. There is a range of resources to support the teaching of mathematics across the school which are accessible to children. We encourage independence by pupils selecting their own resources required when completing tasks. We use resources both electronically and physically when modelling concepts in class. All classrooms have a number line and a wide range of appropriate small apparatus. A range of software is available to support work with the computers. White Rose Hub, Busy Ants, Maths Frame, I See Reasoning and the NCETM website and NRICH are key resources to support teachers with the planning of maths. To extend learners, St Alban's uses Robert Kaplinsky's "Open Middle", to encourage further thinking with open ended problems requiring more than one solution. Each class has their own supply of resources, however there is a school central storage supply where teachers can access further resources for lessons. We encourage the use of physical resources whenever possible as this is what creates meaningful experiences and allows pupils to make connections. SEND pupils have access to specialist resources to support their needs, as advised by school SENCO and other outside agencies.

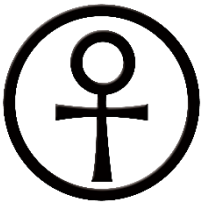
9 Monitoring and review

9.1 Monitoring of the standards of children's work and of the quality of teaching in mathematics is the responsibility of the mathematics subject leader. The work of the mathematics subject leader also involves supporting colleagues in the teaching of mathematics, being informed about current developments in the subject, and providing a strategic lead and direction for the subject in the school. The mathematics subject leader meets with the headteacher to evaluate strengths and weaknesses in the subject and indicate areas for further improvement. The headteacher allocates regular management time to the mathematics subject leader so that s/he can review samples of children's work and undertake lesson observations of mathematics teaching across the school. A named member of the school's governing body is briefed to oversee the teaching of numeracy. This governor meets regularly with the subject leader to review progress.

10. The role of parents and carers

10.1 The engagement of parents and carers has an immense impact on a child's progress in maths. At St Alban's, we engage with parents in many ways to support a child's progress in maths. Every year, a meeting for parents is held by the maths lead to explain strategies used, the calculation policy, the curriculum and give ideas of how to support children at home. All pupils have access to MathsFrame along with other suggested websites to support learning using IT which are posted on the school website as well as Google classroom. Teachers meet at least three times a year for parent teacher consultations where they explicitly inform parents of where their child is working in maths and their next steps. Parents are encouraged to talk to their child's class teacher or the Maths Lead if they have any concerns or require any support in maths. The school has a clear calculation policy which is posted on the school website to show parents method we use at school which is posted on the website. Weekly, teachers set children home learning in maths to support their progress in school. If required or requested, teachers set additional work to support children at home.

Appendix 1



Faith, Hope, Love

INTENT:

The curriculum as St Alban's CE School is ambitious and designed to raise achievement and aspirations for all
Mathematics is an important creative discipline that helps us aspire to whatever we wish in our futures. Pupils at St Alban's have high aspirations which they use the value of hope to achieve through valuable life skills taught in mathematics. We want children to foster a love of mathematics and develop their own sense of curiosity. Through developing perseverance and independence, we develop the children's own faith in their ability. We want our children to be resilient and confident mathematicians with lifelong skills that can be transferred to a range of settings in their futures. We believe all children can achieve in mathematics, and teach for secure and deep understanding of mathematical concepts. We use mistakes and misconceptions as an essential part of learning and provide challenge through rich and sophisticated problems, as a result raising pupil's confidence in the subject.

IMPLEMENTATION:

Our whole curriculum is shaped by our school vision which aims to enable all children, regardless of background, ability, additional needs, to flourish to become the very best version of themselves they can possibly be. We teach the National Curriculum, supported by a clear skills and knowledge progression from EYFS to the end of KS2, ready for secondary school using the "St Alban's Maths Scheme" which was designed by the maths lead alongside the Camden Maths Hub. This is carefully tailored to meet the children's individual needs at St Alban's and ensures that skills and knowledge are built on year by year and sequenced appropriately to maximise learning for all children; therefore avoid cognitive overload. We use a range of problem solving resources to teach this: White Rose Hub; where children are exposed to a range of settings to apply their knowledge, NCETM; which allows children to see a range of visuals to support their individual learning needs and breaks learning into smaller steps, Maths Frame; which allows children to play games and creates enthusiasm, Busy Ants; which offers children opportunities to apply their knowledge along with other resources that give pupils opportunities to problem solve. Our school pedagogy of direct instruction is used effectively in all maths lessons to ensure all learners grasp the learning and make progress in every lesson in manageable steps. We also use many games and practical activities to make maths fun, memorable and

accessible to all! Support is determined during each lesson to ensure secure understanding based on the needs of the child, teachers use a range of visuals and manipulatives to target individual children and ensure they succeed and feel confident. Decisions about when to progress should always be based on the security of pupils' understanding and their readiness to progress to the next stage. Pupils who grasp concepts rapidly are challenged through being offered rich and sophisticated problems before any acceleration through new content. Those who are not sufficiently fluent with earlier material consolidate their understanding, including through additional practice, before moving on Challenge is visible throughout lessons, where children are asked to reason and prove their understanding at a deeper secure level.

IMPACT

By the end of KS2, children are fluent in the fundamentals of mathematics with a conceptual understanding and the ability to recall and apply knowledge rapidly and accurately. They have the skills to solve problems by applying their mathematics to a variety of situations with increasing sophistication, including in unfamiliar contexts and to model real-life scenarios. Children are able to reason mathematically by following a line of enquiry and develop and present a justification, argument or proof using mathematical language. Pupil voice demonstrates that children have a love of mathematics and want to independently find out more. They are confident and secure problem solvers who can apply their skills to a range of settings such as unfamiliar and future career.