



St Alban's C of E Academy  
Maths Policy

## Maths Policy

### Maths at St Alban's

Mathematics is all around us, in everything we do. It is the building block for everything in our daily lives, including mobile devices, architecture, art, money, engineering, and even sports. This subject teaches us how to make sense of the world around us through developing a child's ability to calculate, to reason and to solve problems. It enables children to understand and appreciate relationships and pattern in both number and space in their everyday lives. Through their growing knowledge and understanding, children learn to appreciate the contribution of mathematics within their daily lives.

### Aims of maths at St Alban's

The school aims for each child to become fluent and confident in the basics of mathematics, through the learning of mental and formal written strategies and increasingly complex reasoning and problem solving problems, so that pupils develop their understanding and the ability to recall and apply knowledge accurately. Through this, children will be able to reason mathematically and solve problems by applying their mathematics to a variety of real life problems with increasing sophistication. The outcomes of this aim should be that pupils are numerate, confident enough to tackle mathematical problems without immediately going to teachers or friends for help and able to apply different strategies in different ways.

### Objectives

These aims discussed above will be achieved by:

- Stimulating and engaging learners through practical activity, exploration and discussion;
- Promoting confidence and competence with numbers and the number system, giving the children a secure base in which to start
- Developing a wide range of mental calculations skills
- Encouraging children to use these mental calculation skills in different areas of maths, linking back to prior learning
- Developing children's ability to solve problems through decision-making, reasoning in a range of contexts and a range of opportunities to explore open ended questions and problems
- Allowing children to discuss and present their work using mathematical language, diagrams and charts in their books, to other children and other classes
- Exploring the features of shape and space and developing measuring in a range of contexts through the use of practical resources
- Understanding the importance of mathematics in everyday life.

### Delivery of maths at St Alban's

Each class in both Key Stage 1 and Key Stage 2 will be provided with a daily lesson for mathematics, which will be 65 minutes in duration from 10:55 to 12:00.

The school uses a variety of teaching and learning styles in mathematics lessons. Our main aim is to develop children's knowledge, skills and understanding in mathematics. We do this through a daily lesson that has a high proportion of whole-class and group-direct teaching. Within these lessons, children will have a mental and oral which will build on a previous skill, revise a skill or build confidence for the main learning. During

maths lessons we encourage children to ask as well as answer mathematical questions – this is done through the use of partner talk, group discussions or class discussions. 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 which enables children to manipulate numbers and gain a better understanding.

In all classes there are children of differing mathematical ability. We recognise this and provide suitable learning opportunities for all children by matching the challenge of the learning opportunity to the ability of the child. This is done through a range of strategies including: differentiated learning opportunities throughout all parts of the lesson, apparatus to support the manipulation of numbers and problems, peer support from other children within the classroom as well as adult support and ensuring all children have the opportunity to apply their skills, working independently using the skills and strategies they have been taught. Additionally, mathematics will play a part in other subjects such as Geography and History, where children will be able to develop and apply their mathematical skills for example ordering and creating timelines or collecting and representing data in a chart.

### The curriculum at St Alban's

Planning is consistent with the National Curriculum which ensures clear balance, coverage and progression throughout year groups. Teachers carry out the curriculum planning in mathematics in three phases (long-term, medium-term, and short-term). The National Curriculum for Mathematics gives a detailed outline of what we teach in the long term, while our yearly overview identifies the key areas in mathematics that we teach across the year. These overviews are kept and reviewed by the mathematics leader.

Medium-term plans are adopted from the National Curriculum and our long term overviews and give details of the main teaching objectives for each term, defining what is taught. They ensure an appropriate balance and distribution of learning is spread across each term, ensuring clear progression through the different areas of mathematics. These plans are kept and reviewed by the mathematics leader.

The short-term, weekly plans are the responsibility of the class teacher. These weekly plans list the specific learning objectives for each lesson and give details of how the lessons are to be taught. They also list learning opportunities for all children, identify key questions to use and identify opportunities for children to apply their learning throughout a lesson or across a week. The class teacher keeps these individual plans, and the class teacher and subject leader discuss them on an informal basis.

### The curriculum at Foundation Stage

In the Early years Foundation Stage the children will be engaged in mathematical learning each day. Mathematical aspects of the children's learning is related to the objectives set out in the Early Learning Goals, which underpin the curriculum planning for children aged three to five. In reception, children will begin to work towards the National Curriculum programs of study. In the Early Years Foundation stage all the children are given ample opportunity to develop their understanding of number, measurement, pattern, shape and space through varied activities that allow them to enjoy, explore, practice and talk confidently about mathematics.

### Children with special educational needs

For those children with Special Educational Needs (where progress falls significantly outside the expected range), the teacher will work alongside the SEND Co-ordinator to set specialised targets, which are taught

and reviewed regularly. These targets will factor in to the children's individual learning opportunities. The assessment process looks at a range of factors – classroom organisation, teaching materials, teaching style, resources and apparatus, and differentiation – so that we can take some additional or different action to enable the child to learn more effectively. This ensures that our teaching is matched to the child's needs and is personalised for them.

### Children who are gifted and talented

For those children who are gifted and talented learners in mathematics staff will cater for exceptionally high levels of achievement through differentiated short term planning. For these children accelerated learning experiences where future years or key stages programmes from the National Curriculum will be accessed through investigative work or enrichment learning opportunities.

### Assessment at St Alban's

Assessment is ongoing and continuous and informs future planning. It follows the guidelines established in the school's assessment policy. There is assessment of children's work in mathematics from three aspects (long-term, short-term and medium-term). Short-term assessments are used to help adjust daily plans. These short-term assessments are closely matched to the teaching objectives and are identified during all lessons.

Medium-term assessments are used to measure progress against the key objectives, and to help to plan the next unit of work. This type of assessment will inform judgements that are made on the building blocks by class teachers and are reported every half term. Long-term assessments are made towards the end of the school year, and are used to assess progress against school and national targets. Targets for the next school year can be set and a summary of each child's progress can be made before discussing it with parents. Information is passed on to the next teacher at the end of the year, so that s/he can plan for the new school year. National tests for children in Year 2 and Year 6, plus a variety of optional tests for children at the end of Years 3, 4 and 5 are carried out.

### Resources at St Alban's

There is a wide range of resources to support the teaching of mathematics across the school. Within each classroom, there are class sets of resources aimed to support children of all abilities and other, larger resources are stored centrally in the resources cupboard. In both Key Stage 1 and Key Stage 2 classrooms there is a variety of equipment kept to support children's learning. Early Years Foundation Stage Maths equipment is stored in Foundation stage classrooms. Resources should be ready in the classroom at the start of a lesson so that children can choose the equipment they require rather than the teacher providing it. All equipment must be returned to its correct place after use ready for the next lesson.

### Review

This policy is reviewed annually by staff and governors.