**ALL SAINTS UPTON C.E PRIMARY SCHOOL**

**MATHS POLICY**



**Introduction**

* This policy is intended to describe the aims, principles and strategies for the teaching and learning of Mathematics at All Saints Upton C.E Primary School
* It was updated in Autumn 2023 using knowledge of previous policies, through consultation with staff and using Ofsted findings. It was presented to the Governing Body.
* The policy will be reviewed every 2 years in line with the School’s Development Plan.

At All Saints Upton we believe that a ‘high-quality mathematics education provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the power of mathematics, and a sense of enjoyment and curiosity about the subject’. (National Curriculum September 2013)

Mathematics is a body of knowledge which provides a way of viewing and making sense of the world. It is used to analyse and communicate information and ideas, and to tackle a range of practical tasks and real life problems.

**Vision**

To develop fluency in mathematics, children need to secure a conceptual understanding and efficiency in procedural approaches. It is important to make connections between concrete materials, models and images, mathematical language, symbolic representations and prior learning. We must ensure that children have opportunities to practise the key skills whilst building the understanding and knowledge to apply these skills into more complex activities. The basic skills must continually be practised to ensure that they secure the building blocks in mathematical learning.

**Aims**

The national curriculum for mathematics aims to ensure that all pupils:

* 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.
* **Reason mathematically** by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
* Can **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.
* All Saints Upton C.E. Primary School is committed to Numeracy for life using a mastery approach, and as such provides links with real life mathematics and reasoning at every opportunity.

**Curriculum, progress and continuity**

Mathematics is a core subject in the National Curriculum. The strands, as set out in ‘Mathematics in the National Curriculum’ are number, measurement, geometry and statistics. All teaching staff are involved in the process of planning for Mathematics.

The foundation for curricular planning is the School Development Plan, developed through a process of collaboration between staff. The Subject Leader will develop, implement and monitor a Yearly Action Plan.

Simple Medium term plans are drawn up by the class teacher every half term using the White Rose scheme identifying the objectives that will be covered during maths sessions, and any additional mathematical opportunities. Long term, medium term and individual lessons plans are accessed from a Maths file that each class teacher uses. This planning follows the White Rose Scheme. Planning is annotated to show any adaptations required to ensure all children can access their Year Group. Any extra mathematical opportunities will be shown in planning for that half term’s theme and recorded in Maths books alongside the White Rose Maths Workbooks.

Staff meetings, moderation with other schools and working with the Maths Hub will ensure consistency of approach and standards.

**Daily Strategies for the teaching of Mathematics**

All Saints Upton follows the mastery method, using the White Rose scheme. This is carefully designed to ensure that children gain a deep understanding. The scheme follows the National Curriculum which can be accessed at:

amplehttps://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/335158/PRIMARY\_national\_curriculum\_-\_Mathematics\_220714.pdf

A typical lesson will begin with retrieval of previous maths knowledge. This is followed by development of the teaching focus and opportunities for practical or written activities to consolidate understanding. The class works through the programme of study outlined in the White Rose long term overview and there is some flexibility to add in additional lessons or adaptations to suite the needs of the class. Ideas are revisited at higher levels as the curriculum spirals through the years. Tasks and activities are designed to be accessible for pupils to enter while still containing challenging components that deepen learning. To develop mastery pupils are encouraged to explore their higher-order thinking skills and reasoning through the scheme, and also through other stand-alone opportunities. Based on Jerome Bruner’s work, pupils begin to learn new concepts initially using concrete examples, such as counters, then progress to drawing pictorial representations before finally using more abstract symbols, such as the equals sign.

In Year 6 children continue to use the White Rose scheme but whilst still fulfilling all of the National Curriculum for Upper Key Stage 2 using a variety of materials, they prepare for SATs ensuring that they have covered all areas of the curriculum and are KS3 ready by the end of the year.

In the Foundation Stage a short class lesson is carried out daily. The Mastering Number government program is used in conjunction with the White Rose Scheme, to help teach the Early Learning Goals, in particular Number and Numerical Patterns. Additional Maths knowledge e.g. shape is taught using White Rose to ensure children are ready to progress to Year.

**Basic Skills and Reasoning**

The knowledge of the basic skills is fundamental in helping pupils move towards procedural efficiency. Morning sessions give teachers the opportunity to link with previous, current or future learning so that the prerequisite skills of an objective can be regularly practised and rehearsed. A typical basic skills session could include; counting, recall of facts and practise of a skill linked to current learning. Reasoning skills are also extended using a variety of opportunities in maths lessons and in cross curricular opportunities such as taking accurate measurements in science, or collecting and presenting data.

 Throughoutthe whole curriculum, opportunities to extend and promote mathematics should be sought. When planning lessons staff should seek to include mathematical links when possible, and should also use informal opportunities to link with areas of mathematics, and show how numeracy is a vital skill for life.

There are agreed stages in calculation sequencing. For each operation, and dependent upon the child’s understanding, there are four or five stages, starting with practical methods that support conceptual understating moving through to methods that allow children to demonstrate efficiency in procedural approaches. The calculation sequence provides an opportunity for pupils to practise the skills of calculation through a range of application activities including the use of inverse, missing box, word problems and investigations.

**Marking and Feedback**

Marking follows the school marking policy. Live marking in the lesson is used predominantly so that verbal feedback is given immediately and misconceptions can be addressed at the earliest opportunity. Occasionally children may self-mark, allowing them the opportunity to reflect and respond.

**SEND**

Children with specific difficulties may, where appropriate;

Work in small groups; have follow up consolidation and intervention sessions; receive targeted support in the lesson or follow a curriculum below their chronological age that best suits their needs. Children with a particular flair for mathematics will have their needs catered for by the deep understanding and mastery curriculum.

**Presentation**

Pupils should be reminded to always take pride in their work.

Date must be included for each piece of work.

Use a ruler appropriately i.e. to draw shapes, angles, bar charts etc.

Present all working out neatly, using one number one square

Mathematical symbols must be used to show type of calculation being undertaken.

**Homework**

Children will will be expected to practise their number bonds, multiplication tables and related division facts. The homework policy sets out expectations for this.

**Assessment and Moderation**

Assessment is an integral part of teaching and learning and is a continuous process. It is the responsibility of the teacher to assess all pupils in their class regularly using informal teacher assessment. Assessment information can be gathered in various ways including by pupil teacher discussions, observations, through marking, questioning etc. Assessments are delivered and completed in an age appropriate way. Short end of unit assessments and termly assessments are all designed for the White Rose Scheme and children are assessed on what they have been taught so far. Question Level Analysis from the assessments help to support children by identifying gaps in knowledge which can then be worked on in maths sessions. The achievement of children in Reception will be assessed against the Early Learning Goals.

**Monitoring and Evaluation**

Monitoring exercises will be undertaken across the year and will include; book scrutinies, observations, learning walks, pupil interviews and moderation meetings.

**Role of the Subject Leader**

Aspects of this will include:

Keeping up to date with developments in mathematical education, leading CPD and providing support to staff as needed.

Writing a yearly action plan, and being proactive in carrying it out.

Having an overview of mathematical resources and ordering as necessary.

Reporting to School Governors as appropriate.

Leading staff meetings and parent workshops.

Monitoring and evaluation, along with other members of SLT.

Analysing data to identify trends and ways forward.

**Parents**

Parents are important influences on pupils’ attitude and attainment. We actively encourage and involve them in school life by:

Providing links on our website to activities that can be undertaken at home.

Encouraging parents to think about how we use maths in everyday life.

Holding annual workshops to help parents understand how we teach mathematics in school.

Reporting to parents is undertaken on a termly basis through Parents’ Evenings and annually through a written report.

**Inclusion and Equal Opportunities**

This policy has been considered to give due regard to the three principles of the Equalities Act

* Eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under this act;
* Advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it;
* Foster good relations between persons who share a relevant protected characteristic, and persons who do not share it.

We are committed to:

Eliminating discrimination and harassment

Promoting equality of opportunity

Promoting good relations and positive attitudes towards all people

All pupils have equal access to the curriculum regardless of their race, sex, religious belief or ability. This is monitored by analysing pupil performance throughout the school to ensure that there is no disparity between groups.