



ST. ANNE'S C.E.(VC) PRIMARY SCHOOL



MATHEMATICS POLICY

'Together with God, Making Learning a Life Long Friend'

OUR VISION FOR MATHEMATICS

Our overwhelming intention at St Anne's is to ensure that children enjoy mathematics and can see its' relevance in day-to-day life. We intend to foster the belief that they can all be mathematicians by encouraging the children to 'notice' and 'wonder' during maths lessons.

By encouraging our pupils to be mathematicians we will be nurturing their power of reasoning, creativity, abstract or spatial thinking, problem-solving ability and effective communication skills - all skills that are required across the curriculum.

SUBJECT AIMS AND OBJECTIVES

The main aims outlined in the National Curriculum for mathematics are to ensure that pupils: become fluent in the basics of mathematics; reason mathematically; and can solve problems by applying their mathematics. The Programme of Study forms our long-term plan and we aim to implement this as follows.

IMPLEMENTAION

The design of our curriculum is developing through experience - we were following one scheme throughout the school but felt that this did not offer the depth of curriculum (especially in the early stages) to ensure that pupils were mastering the curriculum objectives.

Early Years - 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 Early Learning Goals, which underpin the curriculum planning for children aged three to five. 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.

We have opted to follow the *Maths - No Problem!* Primary scheme (assessed by the DFE's expert panel as meeting the core criteria to support teaching for mastery) in Years 1 to 3. This programme of work introduces a concept with 'concrete' materials before representing it by pictures and then by abstract notation. These learning theories are the basis of the Concrete Pictorial Abstract approach which we continue to use throughout the school.

Years 4 to 6 use the *Abacus* scheme to provide age-appropriate fluency tasks for our pupils supplemented by the *White Rose Maths Hub* scheme materials to ensure deeper understanding, NRICH to support problem solving and NCETM materials to assess for mastery.

We are continuing to assess the impact of using *Maths - No Problem!* and will be deciding whether to invest in this or other mastery textbooks (such as *Power Maths*) with these three year groups.

The programmes of study are, by necessity, organised into apparently distinct domains, but pupils should make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. They should also apply their mathematical knowledge to science and other subjects.

SUBJECT LEADER

The member of staff responsible for leading mathematics at St Anne's is Mrs Julie Edwards.

The teaching of mathematics is monitored frequently by leaders through lesson observations, planning monitoring, book scans and pupil interviews.

TEACHING APPROACHES & PLANNING

There is a daily mathematics lesson for all children. Lessons include whole class, guided group, group, paired and individual work. Problem solving and reasoning are an important part of every lesson (recent expectation for each KS is for children to record this element of maths with a 'Think' cloud or bubble in almost every lesson). Learning through a clear progression of mental and written methods (see Calculation Policy), children develop understanding and the skills to carry out calculations independently.

Long and medium term planning is structured to ensure full coverage of the National Curriculum Programmes of Study at the appropriate Key Stage.

The expectation is that the majority of pupils will move through the programmes of study at broadly the same pace. However, 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 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 practise or intervention sessions, before moving on.

Short term planning is done by class teachers (on a planning sheet of their choice) on a weekly basis using the checklist 'Teacher expectations in Maths' sheet to ensure all required elements are included.

CONTRIBUTION OF MATHEMATICS TO THE DEVELOPMENT OF SMSC EDUCATION

SPIRITUAL: Developing a logical approach and the ability to recall and reason, along with questioning the way in which the world works promotes the spiritual growth of our pupils. We aim to be enthusiastic about the subject and to use a range of teaching strategies that allow children to be creative or imaginative.

MORAL: The moral development of pupils is evident in much of the curriculum where maths is used in real life contexts and the pupils are able to apply the skills required to solve various problems and understand how decisions are made dependent upon the outcomes of the problem. We hope to develop an awareness that maths is not strictly limited to problems that result in right/wrong solutions.

SOCIAL: Using and applying maths involves being able to solve problems and being able to do this individually, as part of a team or pair when a task requires it, is fundamental. Children are encouraged to communicate mathematically when discussing, explaining and presenting ideas, through which they are able to develop their mathematical reasoning skills.

CULTURAL: Mathematics is the universal language of the world! At St Anne's we aim to develop a realisation that many topics we learn today have travelled across the world and are used internationally.

INCLUSION

The aim is to ensure that all learners make progress and gain positively from each mathematics lesson. Teachers are aware of the differing needs of individuals and support and challenge learners where appropriate. Children who are identified with as having special educational needs will be carefully planned for, with individual programmes drawn up by the class teacher in conjunction with the SENCO.

ASSESSMENT AND RECORDING

Formative Assessment (AfL) - (monitoring children's learning) Assessment is an integral and continuous part of the teaching and learning process at St Anne's and much of it is done informally as part of each teacher's day to day work. Teachers integrate the use of formative assessment strategies such as: effective questioning, clear learning objectives, steps to success criteria, effective feedback and response in their teaching and marking, and guiding and observing children participating in activities. Findings from these summary judgements are recorded on an assessment grid of year based objectives using four levels of attainment. These judgements are discussed at termly pupil progress meetings alongside the summative assessment results. Staff have the opportunity to regularly assess and moderate their judgments with a colleague at staff meetings and at least once a year with teachers from another school.

Summative Assessment - (evaluating children's learning) More formal methods are used to determine the levels of achievement of children on a termly basis (and more often in Year 6). We use termly assessments as a way of recording children's progress. These test results alongside the teacher summary judgements are analysed termly to determine whether extra intervention teaching is required. In addition to Statutory End of Key Stage Assessment at year 2 and year 6, other year groups sit an Optional SAT paper.

RESOURCES

Most mathematical resources are stored within individual classrooms. Any additional 'Bulky' resources are located in the central resource storeroom.

Signed:

Date:

Review 2019

Approved:	
Review Date:	