

The Saints' Federation

Mathematics Policy

The Saints' Federation strives to deliver a stimulating and enjoyable Maths curriculum and will provide this following The Mastery Approach. This is a new approach which is taught in units of work with small steps. The aim of this approach is for every child to have a secure understanding of mathematical concepts and processes, combined with a genuine procedural fluency. A child who has mastered a particular skill is able to apply their understanding and solve different types of problem, including where the skill is either embedded in a different context, or where a choice of method has to be made. For example, a child who has mastered adding two 2-digit numbers should be able to identify where this is required, even when it is not presented in a straightforward way (e.g. $\square - 23 = 39$) and also choose an efficient strategy for doing it (e.g. $40 + 22$).

Some children will be able to achieve mastery with greater depth. This means that they are able to apply their understanding of a concept in a wider variety of contexts, some of which are more difficult. They can manipulate the facts they know and the skills they possess in order to solve more complex problems. More developed forms of mathematical reasoning are central to this process, and enable the recognition of a link between operations and processes. For example, a child who has mastered the addition of 2-digit numbers in greater depth will be able to explain why it is possible to add two numbers both with units digits greater than 5 and get answers with units digits less than 5 (e.g. $16 + 7 = 23$). They may also understand why adding a number to its matching reverse (46 and 64) will always give a multiple of eleven.

Common features of mastery include:

- An expectation that all children can succeed in maths, often achieved by keeping the class together.
- Giving children a secure and sustainable understanding of mathematical concepts by developing consistent models and images throughout.
- Ensuring children are fluent in mathematical procedures and number facts by rehearsing these in systematic ways.
- Children who master a concept easily are expected to deepen their understanding, for example by applying it to solve problems embedded in mathematical investigations or more complex contexts.

Planning

The teaching staff are using the White Rose Maths Hub Planning, which covers all the National Curriculum objectives that the children need to cover in their

year group. The planning is based on units of work and has been designed to give sufficient time for teachers to explore concepts in depth thus ensuring pupils are secure in the concepts before moving onto new ones. The planning interleaves prior content into the new concepts.

A calculation progression for numerical written methods is used throughout the school to ensure that number operations are taught in an agreed format, consequently ensuring progression and continuity across the school. This is made available to parents on each school's website. We are, at present, also working on an agreed calculation progression for numerical written methods across the pyramid schools in Uttoxeter and thus ensuring progression and continuity for the pupils when they move to middle school.

Cross Curricular Links

Cross curricular links within mathematics activities are highlighted on Medium Term Planning sheets. However, Maths is sometimes planned within other subject areas. We particularly note the cross curricular links with Science, DT, Art and Geography. Therefore, reference to mathematical skills is sometimes noted in planning for other subject areas. Through this approach we hope to help children successfully apply their mathematical learning.

Assessment

Assessments are a continuous progress and will be used to inform teaching in a continuous cycle of planning, teaching and assessment.

Ongoing assessment is made during and after each lesson through questioning, observation, discussion and marking of children's work. This is noted on daily lesson plans and informs the teacher's day to day planning. The children are able to carry out corrections and respond to next steps and teachers' comments. All teachers (in Key Stage 1 and 2) use Not As You Know It tracking, to monitor achieved objectives for each individual child and regularly track the child's progress. This enables teachers to evaluate the stage of a particular child's learning and what steps will be required next in order for the child to make progress. In Reception on-going assessment is made against the learning development requirements of the Early Years foundation stage framework leading towards the Early Learning Goal.

Each half term the children are assessed by their class teacher using a variety of methods. This information is used by the class teacher and the Mathematics

co-ordinator to assess and monitor individual and cohort progress and set targets for future improvement.

Near the end of each term the children within Key Stage 1 and 2 will also sit PUMA tests which give a mathematics age for each child and a standardised score. This information is shared with parents at Parents' evening and on the child's end of year report. Reception children sit a test only in the Summer term. This information is also used by the class teacher, Mathematics co-ordinator and the headteacher to assess and monitor individual and cohort progress and set targets for future improvement. This information is thoroughly handed over to the child's next class teacher, or when appropriate, next school, along with the results from the compulsory National Curriculum tests for pupils in Year 2. Parents of children in Year 2 will also receive a copy of their child's attainment in the National Curriculum tests at the end of the academic year.

Each child receives a written report for Maths at the end of each academic year and parents have the opportunity to meet the child's class teacher and discuss progress each term at a parents' meeting.

Equal Opportunities

In line with whole school policy on Equal Opportunities, Maths units of work will be planned to give equal access for all pupils to activities and resources.

Resources and Classroom Organisation

Maths lessons may be organised in a variety of ways to best suit each activity. These include;

- Whole-class or year group teaching.
- Group or paired work supported by a teacher, teaching assistant or parent helper.
- Teacher working with a group alongside consolidation activities for other groups.
- Teacher working with individuals or small groups alongside consolidation activities for other groups.

Each classroom has a bank of Maths equipment and access to shared resources.

Roles and Responsibilities

This policy has been developed through consultation between staff and between the subject leaders, headteacher and governing body. The co-executive headteachers, head of school and subject leaders monitor and evaluate the work achieved by the children in this area. The subject leaders identify areas for development, resource needs and help in the moderation of standards across the school. The leaders also work with the link subject governor so that they are aware of such issues. The leaders liaise with the link governor about their visits to school. The link governor will also keep the governing body informed about developments in this area.

Monitoring and Evaluation

The monitoring and evaluation of the achievements made in this area of the curriculum is carried out through the guidelines on monitoring and evaluation. These set out how the co-executive headteachers, head of school and subject leaders use a range of strategies to assess the quality of achievements. The class teachers however, have a key role in monitoring and evaluation of their work and that of the children in their class. The co-executive headteacher works with the governing body to inform them about the work carried out within the school. The reports from the Local authority health check or OFSTED inspections give independent and outside views on the standards achieved within the subject area.

Home School Links

We encourage parents to support their child's mathematical learning in the home in the following ways:

- By encouraging and supporting parents working in the classroom with groups or individuals.
- By giving feedback to parents at parents' evenings of their child's progress.
- By making sure that the children complete homework set by their class teacher.

Homework is used to provide opportunities for the children to practise and consolidate their skills and knowledge, to develop and extend their techniques and strategies and to prepare for future learning. Regular homework is set for all children, this may be computer based, paper based or learning facts. Within Reception each child has a home-school link book and each week the class teacher informs the parents of the Maths focus for the week so that they can help reinforce and extend their child's learning at home.

Established

Review