

The Saints' Federation

- St Augustine's First School, Draycott in the Clay
 - All Saints' First School, Denstone
 - St Peter's First School, Alton



Mathematics Policy

Established June 2016

Adopted by the Full Governing Body June 2016

Signed by:

Chair of Governors:

Mr T Davies

Executive Headteacher:

Miss S Robson

Review June 2017

The Saints' Federation

Mathematics Policy

The Saints' Federation strives to deliver a stimulating and enjoyable Maths curriculum whilst ensuring that through appropriate support and challenge, learning is tailored to each and every child. This approach reflects the aims of the National Curriculum (2014) and the Early Years framework (2014).

Maths in Key Stages 1 and 2 is a subject which involves confidence and competence in the areas of number, measurement, geometry and statistics. This Mathematics Policy values underpinning mathematical learning by providing a balance between conceptual understanding and procedural fluency in order to develop the children's arithmetic proficiency. It also promotes the ability to solve problems in a variety of mathematical contexts. To be secure in curriculum expectations, the children should demonstrate their understanding using a variety of manipulatives and models and be able to articulately explain their thinking whilst engaging in discussion.

We, as a federation, recognise that these are fundamental necessities for children to be able to fulfil their potential in their academic lives and in society as a whole, allowing them to meet challenges equipped as numerate individuals. In primary education, we supply the foundations for everything that will follow.

The schools' policy for maths is built around the 2014 National Curriculum and the 2014 Foundation Stage framework. It will take note of the schools' approach to inclusion and will recognise both the content and the purpose of the policies on Dyslexia and Special Educational Needs in all practice. All children will have their individual learning needs recognised in the implementation of this policy. The implementation of this policy is the responsibility of all the teaching staff.

Maths is one of the core subjects of the National Curriculum. The knowledge, skills and understanding the children gain through learning Maths not only permeates every other subject of the curriculum, but also plays a major role in our everyday lives. At The Saints' Federation therefore, we aim to provide children with the necessary knowledge, skills and understanding of Maths within a framework of real contexts and concrete experiences so that their learning is meaningful and enjoyable.

Aims and Objectives

In our whole school planning of Maths we aim for the children to ;

- Have a positive attitude to mathematics.
- Have self confidence in their ability to deal with maths.
- Be able to work systematically, cooperatively and with perseverance.
- Be able to think logically and independently.
- Experience a sense of achievement regardless of age or ability.
- Understand the appropriate underlying skills, concepts and knowledge of number, measurement, geometry and statistics.

- Be able to apply previously acquired concepts, skills and knowledge and understanding to new situations both in and out of school.
- Understand and appreciate pattern and relationship in mathematics.
- Be able to communicate with peers and adults, ideas, experiences, questions, clearly and fluently, using the appropriate mathematical vocabulary.
- Be able to explore problems using the appropriate strategies, predictions and deductions.
- Be aware of the use of mathematics beyond the classroom.
- Encourage the use of mental calculations and efficient strategies to work out solutions to enable them to develop procedural fluency alongside their conceptual understanding.
- Be able to use and select a variety of equipment and materials.
- Learn and use the necessary number facts.

For Parents to:

- Be actively involved in their children's mathematical learning both in school and at home.

We aim to achieve our objectives in a variety of ways. Some activities will use mental and paper and pencil methods. We will also make use of games, stories, practical examples and investigations. Emphasis will be placed on the children being able to explain and reason about their work. Some activities will be short tasks, others will be longer, ongoing tasks.

Planning

Long Term Planning

A published scheme is used in each Key Stage to provide a framework for each teacher's plan for the year. Each teacher is also responsible to make sure they are covering all the objectives set out in the National Curriculum and cross reference the scheme objectives with these.

Reception : Abacus Active Learn and the Early Years' foundation stage framework

Key Stage 1: Abacus Active Learn

Key Stage 2: Abacus Active Learn

Material from the scheme is used to cover the necessary programmes of study for each Key Stage linked directly to the National Curriculum. Each child is taught using the most appropriate activities, materials from other schemes and workbooks can be used to ensure each child's progression, especially to develop their problem solving and reasoning skills.

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 individual school's website.

Medium Term Planning

The scheme provides medium term planning that can be adapted electronically to suit the needs of the class and also the content being delivered. Each teacher has to make sure that all the areas are covered and that the children have opportunities to carry out problem solving and reasoning.

Short Term Planning

The scheme provides weekly plans with objectives, differentiated activities and teaching ideas. These are altered and annotated electronically where necessary to suit the needs of the children and the class.

Teaching Time

To provide adequate time for the development of mathematical skills each teacher will provide maths lessons weekly. In key stage 2 this happens on two full mornings and a single lesson on a separate morning, key stage 1 follow a similar pattern. Links will also be made to mathematics within other subjects so pupils can develop and apply their mathematical skills (e.g. through topic work). As part of their broader experience, children will be involved in 'Maths Missions' and real life problem solving activities, where they need to work individually, in pairs or in groups to solve problems and give reasons for their answers.

A typical lesson

A typical lesson will usually be structured as follows:

- *Mental Oral Warm Up*

This will involve whole-class work to rehearse, sharpen and develop mental and oral skills, often involving a counting activity.

- *The main teaching activity*

This will provide both teaching input and pupil activities and a balance between whole class, grouped, paired and individual work based on ability.

- *Mini Plenaries throughout the lesson*

This could be with the whole class or a specific group, and can be used to identify misconceptions, ensure progress, summarise key facts, assess against the success criteria for the lesson, to make links to other work and discuss the next steps in learning.

- *Plenary*

An opportunity to make links between sequences of sessions, reflect on learning against the success criteria and practise taught skills.

However lessons can be adapted and varied in structure to meet the needs of the children and the content being covered.

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 process 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, to monitor achieved objectives for each individual child and regularly track progress, and to inform their planning and teaching. Each parent is issued with the Not As You Know It statements for their child's year. 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. Reception parents are also provided with these statements and the Early Years 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.

Differentiation, Gifted and Talented and S.E.N.D

Each class teacher groups the children for Maths according to their ability. To ensure differentiation the teacher plans activities and support for these groups specifically to further their learning at their own level.

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 headteacher, 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 linked 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 headteacher, 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 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. Home Learning is set at the discretion of the class teacher across Key Stage 1. Regular homework is set for Key Stage 2 children and all children from year 1 to 4 have their own user name and password to access Abacus where they can play games to reinforce their skills or watch videos to reinforce methods used. Each teacher is responsible for loading these activities for the children to access. 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.

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