

Saint John Fisher Catholic Primary School



Maths Policy

“To live, love and learn and learn in our caring community.”

Saint John Fisher Catholic Primary School



Maths Policy

Introduction

This policy outlines the aims, organisation and management for the teaching and learning of mathematics at St. John Fisher's Primary School.

It is based on Excellence and Enjoyment, the National Curriculum (NC) programmes of study (PoS), and is supported by the Primary Framework for mathematics.

This policy will be reviewed in July 2018.

Aims

Mathematics is a life skill. It is an essential element of communication, widely used in society, both in everyday situations and in the world of work.

Our aims in teaching mathematics are:

- To equip pupils with the mathematics they need to become numerate.
- To develop their ability to apply mathematical skills with confidence and understanding when solving problems.
- To enable pupils to express themselves and their ideas using the language of mathematics with assurance through opportunities to talk about their learning in their math's lessons.
- To develop positive attitudes to mathematics, recognising that mathematics can be both useful and enjoyable.

- To nurture a fascination and excitement of mathematics through active participation.
- To be able to use and apply the skills in other curricular areas.

Teaching Mathematics

Organisation

- A daily mathematics lesson of 45 - 60 minutes is taught in Year 1 - 6.
- EYFS is being used for children at the foundation stage. At this stage pupils experience mathematics on a daily basis. This early introduction to mathematics will generally be undertaken orally and often in the context of a class theme, e.g. a particular story. Opportunities for mathematics should be developed through daily routines and all areas of learning.
- Pupils are taught in class groups.
- A twenty minute basic skills lesson is delivered four times a week. This session focuses on basic recall skills.
- The skills acquired in the numeracy lesson are applied across the curriculum especially for data handling.

A typical 45 - 60 minute lesson in Year 1 - 6 will be structured like this:

- **Oral work and mental calculation** (about 5 to 10 minutes) This will involve whole-class work to Rehearse, Recall, Refresh, Refine, Read, Reason mental and oral skills differentiated according to pupil's needs.
- **The main teaching activity** (about 30 to 40 minutes) This will include both teaching input and pupil activities and a balance between whole class, guided group work, paired and individual work. Children may work in mixed or ability groups according to the intended learning outcome.
- **A plenary** (about 10 to 15 minutes) This will involve work with the whole class to refer back to Learning objective and success criteria, address misconceptions, identify progress, to summarise key facts and ideas, clarify what needs to be remembered, to make links in other work and to discuss next steps in learning.

Teaching strategies

In order to provide the children with active and stimulating learning experiences, a variety of teaching and learning opportunities are adopted:-

- Children may work individually on a task, in pairs or in a small group, depending on the nature of the activity.
- Wherever possible practical 'real' activities are used to introduce concepts and reinforce learning objectives.
- Opportunities to transfer skills learnt, to real situations, are used whenever possible.
- Activities are planned to encourage the full and active participation of all pupils.
- Teachers differentiate tasks throughout the lesson in order to meet the needs of all abilities.
- Teachers place a strong emphasis on correct use of mathematical language; this is supported by key vocabulary being displayed in the classroom and by being part of the Routeways to Calculation.
- Teachers value pupils' oral contributions and create an ethos in which all children feel they can contribute.

Curriculum Planning

Medium Term Planning

Teachers use the Primary Framework to plan teaching sequences that build learning over time eg; for 2 or 3 week units. The emphasis is to develop a sequence of teaching and learning that encompasses the cycle of assess, plan, teach, practise, apply, and review through every unit. A strong emphasis on Using and Applying mathematics is embedded within the curriculum. A whole lesson is designated entirely to using and applying skills.

We follow the planning structure from the Primary Framework, that organise the 7 strands of mathematics into five blocks across the year:

Block A: Counting, partitioning and calculating

Block B: Securing number facts, understanding shape

Block C: Handling data and measures

Block D: Calculating, measuring and understanding shape

Block E: Securing number facts, relationships and calculating

Links and connections between the strands of mathematics are made within the blocks

Each block consists of 3 units, each comprising of 2 or 3 weeks of teaching. For each unit, teachers use the previous learning, learning overviews, assessment for learning questions and other resources provided in the Primary Framework.

Short term planning

- The Coventry proforma is used by staff to plan learning over a series of lessons.
- These plans must include learning objectives, outline activities for the mental and oral starter, whole class teaching focus, guided group work, independent tasks, and resources to be used, differentiation, key vocabulary and key questions. Curricular targets that groups of learners are working on are also included.
- Planning clearly shows which group the teacher will be focusing on each day and which group will be supported by the additional adults.
- Teachers evaluate units of work, making notes on pupils who have exceeded or not achieved expectations.

The medium and short term planning is collected and monitored by the maths subject leader.

Teaching methods and approaches

In order to provide the children with active and stimulating learning experiences, a variety of teaching and learning opportunities, as recommended in the primary framework, are adopted:

- Children may work individually on a task, in pairs or in a small group, depending on the nature of the activity.
- The school has agreed a presentation policy for mathematics, *including books and number formation*.
- A 'Routeway' through calculation has been agreed. The methods taught are exemplified in the attached 'Routeway through calculation' documentation.
- ICT is used where appropriate by teachers and pupils to support teaching and learning in Mathematics.
- The use of the calculator is introduced in year 4. The school adopts the guidance on their use as outlined in the Primary Framework.

Assessment, recording and reporting

Assessment takes place at three connected levels: short-term, medium-term and long-term. These assessments are used to inform teaching in a continuous cycle of planning, teaching and assessment.

Day-to-day assessments

As part of the ongoing teaching and learning process, teachers will assess children's understanding, achievement and progress in mathematics. Assessment may be based upon observation, questioning, informal testing, feedback marking and evaluation of work. Teachers are expected to leave developmental gap tasks and then give children time to complete them before the next Maths lesson. Teachers review the gap tasks to assess progress and identify any misconceptions. This will inform day to day teaching and learning and provide feedback to children. Learners will also be taught to assess and evaluate their own achievements by recognising successes, learning from their own mistakes and identifying areas for improvement. The outcomes of short and medium term assessments will be recorded on short term planning and through the highlighting of medium term plans ready for the planning of the next unit of work.

Periodic assessments

These take place termly. Teachers currently use previous year's SATS paper or QCA papers to assess the children. The outcomes are recorded on a tracking excel sheet and passed to the maths subject leader. If the outcome from a test is not as expected, the teacher can override this with a teacher assessment along with evidence for the judgment.

Transitional assessments

Carried out towards the end of the school year to assess and review pupils' progress and attainment. This enables attainment to be tracked year on year and will inform groupings and intervention programmes.

These are made through compulsory National Curriculum mathematics tests for pupils in Years 2 and 6 (following National directives) and supplemented by the optional QCA tests. Teachers also draw upon their class records of attainment and supplementary notes and knowledge about their class to produce a summative record. Accurate information is then reported to parents and the child's next teacher.

Intervention programmes

Every Child Counts intervention programme is currently used with learners predominately in Year 2 and 3 who are below age related expectations. Children receive either one to one sessions or small group sessions for 40 x 30 minutes sessions across a half term. These children are then tracked to measure the impact of the intervention.

First Class intervention programme is currently used with learners up to a level 1a who are at risk of not reaching age related expectations.

DCSF - Overcoming Barriers materials are utilised above and beyond the daily mathematics lesson, to support children who are at risk of not reaching age related expectations.

Springboard materials are used for groups of learners who are not achieving age related expectations who with intervention can move from below track to on track.

Equal Opportunities

All pupils will have equal opportunity to reach their full potential across the mathematics curriculum regardless of their race, gender, cultural background, ability or physical disability.

Inclusion

The school's equal opportunities policy applies to the teaching of mathematics as to all other subjects.

Environment

It is important that the classroom environment supports both the learning and teaching of mathematics.

The school aims to provide a mathematically stimulating environment:

- through the development and use of working walls to support learning and teaching in a lesson or series of lessons. During the planning stage, teachers consider the use of resources and how these could be displayed throughout the unit of work
- through interactive displays that promote mathematical thinking and discussion
- through displays of pupils' work that celebrate achievement
- by providing a good range of resources for teacher and pupil use.

In every classroom, resources such as number lines, hundred square, place value charts and multiplication squares are displayed as appropriate and used for whole class or individual work.

Homework

We recognise the importance of making links between home and school and encourage parental involvement with the learning of mathematics. Homework provides opportunities for children

- to practise and consolidate their skills and knowledge,
- to develop and extend their techniques and strategies, and
- to share their mathematical work with their family
- to prepare for their future learning.

Maths homework is set every week and generally links to the learning that week. It is handed out on Friday and returned on Wednesday the following week so that children have the opportunity to seek additional clarification after the weekend if required.

See **Homework** policy for further details

Signed:

D Williams

Date: September 2017