



St John's C of E Primary Academy

Maths Policy

Author: H. Chesters
Date of issue: January 2017
Review date: January 2018

Key Personnel

Principal: Sarah Cockshott

Chair of Governors: Fr Roger Gilbert

St John's Primary School

Mathematics Policy

Purpose of Study

Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.

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.

Information and Communication Technology (ICT)

Calculators should not be used as a substitute for good written and mental arithmetic. They should therefore only be introduced near the end of key stage 2 to support pupils' conceptual understanding and exploration of more complex number problems, if written and mental arithmetic are secure. In both primary and secondary schools, teachers should use their judgement about when ICT tools should be used.

Spoken Language

The national curriculum for mathematics reflects the importance of spoken language in pupils' development across the whole curriculum – cognitively, socially and linguistically. The quality and variety of language that pupils hear and speak are key factors in developing their mathematical vocabulary and presenting a mathematical justification, argument or proof. They must be assisted in making their thinking clear to themselves as well as others and teachers should ensure that pupils build secure foundations by using discussion to probe and remedy their misconceptions.

School Curriculum

The programmes of study for mathematics are set out year-by-year for key stages 1 and 2. Schools are, however, only required to teach the relevant programme of study by the end of the key stage. Within each key stage, schools therefore have the flexibility to introduce content earlier or later than set out in the programme of study. In addition, schools can introduce key stage content during an earlier key stage, if appropriate. All schools are also required to set out their school curriculum for mathematics on a year-by-year basis and make this information available online.

Attainment Targets

By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.

Mathematics at St John's

For the academic year, 2014/15, Years 1,3,4 and 5, will use the DfE Mathematics Programme of Study as their long term plan and use medium term plans (please see separate document) developed from the statutory requirements for each year group, with specified topics for progression and coverage. Flexibility is possible within the medium term plan, depending on pupil needs and cross curriculum opportunities. However, number must be taught first at the beginning of each half term.

Years 2 and 6, for the academic year 2014/15 will continue to use the Primary Framework for Numeracy.

Calculation Policy

In light of the new DfE Mathematics Programme of Study, we reviewed our calculation policy, in conjunction with the WLCT Numeracy Hub, to ensure progression and consistency in our written calculation methods. Please see separate document.

ICT

Each classroom is equipped with an interactive whiteboard. Teachers are expected to incorporate and use it, to support teaching and motivate children's learning in numeracy.

Pupils have the opportunity to use laptops and I pads in the classroom to consolidate and practise numeracy skills. Teachers should ensure that the chosen programmes are the most efficient and effective way to meet the lesson objectives.

Each child has log in details to use the online learning platform, Mathletics, both at home and at school. The Numeracy Lead will update teacher and pupil details at the beginning of the academic year. It is the class teacher's responsibility to ensure that children receive log in details to take home, class lists are updated with pupil changes, mid way through the year and work is set at the correct level for students.

Resources

The Numeracy Lead has responsibility for managing, organising and ordering resources. Pupils have the opportunity to independently access a range of day to day resources that are kept in labelled drawers in each classroom. Additional resources can be found outside the Key Stage 2 classrooms. In consultation with teaching staff, the Numeracy Lead will purchase additional resources from the yearly allocation of finances. Teaching staff need to make the Numeracy Lead aware, if there are insufficient resources to teach a topic effectively or if resources get broken.

Display

Written calculation posters and appropriate numeracy vocabulary for the age group, need to be displayed on or near the numeracy working wall.

EYFS

Children must have a daily numeracy lesson, reflecting the statements outlined in Development Matters and weekly adult directed activities. Outcomes from practical adult guided activities should be recorded either in the children's work book or class log.

Key Stage 1 and 2

Children must have a daily numeracy lesson and a mental oral starter, which may form part of the lesson or be a stand alone. The plenary may be at the end of the lesson or a mini plenary within the lesson. In Key Stage 1, practical activities should be evidenced in the class learning log and

cross referenced with the date, in pupil's books. In Key Stage 2, children should still write the date and LO and add a comment after the activity.

Worded problems should be incorporated into daily lessons and teaching staff have access to Test Base for appropriate examples.

Homework

Number homework is set on a weekly basis and is linked to the work done in school during the previous week. Children will also be required to practise their multiplication tables and / or learn number facts to support their learning in school as part of their homework.

Marking and Assessment

Teacher, self and peer marking and assessment should adhere to the relevant policies.

