

# St Mary's Catholic Primary School

## Mathematics Policy

Person Responsible: Miss C Phipps

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Approved by Governors:

### **Rationale**

This policy document sets out the aims, principles and strategies used for the teaching of mathematics within our school.

Mathematics is a vital life skill that equips pupils with a uniquely powerful set of tools with which to understand and challenge the world. These tools include logical reasoning, problem solving skills and the ability to think in abstract ways. Mathematics also provides an effective means of organising and communicating information.

Our policy for mathematical education stems from a fundamental belief that all children should have the confidence and ability to approach any mathematical situation they might meet in their lives with appropriate skills and understanding.

### **Aims**

Our aims in teaching mathematics are:

- To plan and deliver Mathematics using the new 2014 National guidelines as a framework.
- To stimulate interest and foster an enjoyment of mathematics
- To equip pupils with the skills and strategies they need to become numerate and develop a sound understanding of all mathematical areas.
- To enable pupils to express their ideas clearly using appropriate mathematical vocabulary.
- For pupils to develop their ability to use and apply the mathematical knowledge, language and skills learned in mathematics lessons in a variety of relevant contexts and situations e.g. maths investigations, problem solving activities or cross curricular opportunities.
- To give regular opportunities for independent, paired and collaborative work.
- To stimulate, encourage, support and challenge all pupils regardless of ability.
- To help all pupils to achieve the highest possible standard in mathematics

### **Equal Opportunities/Inclusion**

We aim to provide equal opportunities for all children regardless of race, class, physical ability, gender or special educational need to ensure that all pupils have access to the

National Curriculum at a level appropriate to their ability and therefore, achieve their full potential.

## **Roles and Responsibilities**

The roles and responsibilities with regard to mathematics are as follows:

### ***Staff***

- to deliver Mathematics to all pupils in their class
- to provide weekly planning
- to adapt teaching and learning materials to ensure equal opportunities for all pupils, supporting the less able and challenging more able pupils
- to monitor and assess all areas of mathematics to ensure that learning objectives and outcomes are achieved
- to assess pupil attainment formally every term and use this information to inform future planning by the teacher
- to enter termly teacher assessments for each pupil into the Target Tracker program
- to use Target Tracker data to identify and target pupils in their class not making expected progress
- to provide a wide variety of mathematical activities and tasks, including regular problem solving and investigations to encourage and develop logical reasoning
- to ensure that pupils have opportunities to use ICT where appropriate in maths lessons
- to ensure that classrooms have an easily accessible and clearly labelled maths resource area
- to display and discuss mathematical terms and vocabulary
- to liaise with parents and provide exercises/activities for weekly homework

### ***Mathematics Co-ordinator***

- to monitor the effective delivery of the agreed units of work in Mathematics
- to monitor work in books to ensure coverage of the National Curriculum, and continuity and progression within year groups and Key Stages throughout the school.
- to analyse RAISE ON LINE, SATS and class assessment tests/target tracker data for areas of development.
- to use Target Tracker data to ensure class teachers are identifying and targeting pupils not making expected levels of progress, and to make sure that pupils are accessing appropriate work for their ability.
- to provide support and advice as required
- to arrange for and deliver INSET as required
- to bid for funding and order/update resources
- to liaise with all Key Stage leaders to ensure good progression throughout the school.

- to consult with the local Maths Adviser, the Headteacher, governors, staff and parents to ensure there is consistency at home and at school-with all stakeholders having a solid understanding.
- to provide an Action Plan with clear time frames and revise the Mathematics Policy annually.

## **Teaching and Learning**

At St Mary's, pupils are provided with a variety of opportunities to develop and extend their mathematical skills in and across each phase of education.

### ***Maths in the Early Years Foundation Stage (EYFS)***

Young children's lives revolve around mathematical experiences, from counting fingers and toes, to pouring water into bath toys and going shopping, and it is important for the school to build on the experiences that the child brings from home.

In the Foundation Stage, mathematical ideas and language is developed through practical activities and direct experiences. For example, role play provides opportunities for children to experiment with number concepts; length, weight, size and capacity. Problem solving can be explored through sand and water play; shape and fractions through playing with blocks, and pattern and speed from music and dance.

A broad range of practical learning opportunities combined with supportive interaction from adults helps pupils develop the knowledge and understanding outlined in the Curriculum Guidance Document for the Foundation Stage needed for pupils to achieve the Early Learning Goals. All pupils are given the opportunity to talk and communicate in a widening range of situations in order to practise and extend their range of vocabulary and numeracy skills.

### ***Key Stages 1 and 2***

Lessons typically follow the new guidelines set out in the 2014 framework. The teaching of mathematics provides the opportunities for:

- Group work
- Paired work
- Whole class teaching
- Individual work

Children engage in:

- The development of mental strategies
- Written methods
- Practical work
- Investigational work
- The development of reasoning skills
- Problem solving activities
- Mathematical discussion
- Consolidation of basic skills and number facts

Mathematics is a subject that has links to many subjects, it is important that the children are given opportunities to apply and use mathematics in real contexts.

Although mathematics is taught mainly as a discrete subject, every effort is made to link mathematics with other areas of the curriculum. We try to identify mathematical possibilities across the curriculum at the planning stage and draw children's attention to the links between mathematics and other curricular work so they see that mathematics is not an isolated subject. In Early Years, these links are more evident because of the less formal timetable.

We endeavour at all times to set work that is challenging, motivating and encourages the children to talk about what they have been doing. We also aim to provide a stimulating learning environment equipped with appropriate resources to help pupils develop their mathematical skills and understanding.

### ***Recommended Teaching Times***

To ensure that there is adequate time for developing the study of mathematics and for developing numeracy skills, each class has a daily mathematics lesson. Lessons last approximately 45 minutes in Key Stage 1 and 50 to 60 minutes in Key Stage 2.

### ***Setting in Maths***

Year 6 is set for Maths. We believe that teaching in ability groups will be a more effective way of supporting the less able, challenging gifted and talented pupils and enabling all children to achieve their full potential.

## **Record Keeping and Assessment**

Assessment, both summative and formative, is carried out on a regular basis at St Mary's. The information gathered is used to plan lessons and to identify the needs of individual pupils.

### ***Short Term Assessment - Assessment for Learning***

Short-term assessment (AFL) is an informal part of every lesson and is closely matched to the learning objectives.

The main purpose of assessment is to:

- Identify those pupils who have grasped the teaching objective of the lesson - and those who need additional practice or support.
- To inform short term planning.

Teachers will use assessment opportunities within lessons and adjust short term plans accordingly depending on the needs of their pupils.

### ***Medium Term Assessment***

Medium term assessments in Years 1 to 6 are completed termly.

The purpose of medium term assessments is to:

- Review and record the progress children are making over time in relation to the key objectives.

- Identify children's progress against specific targets.
- Help members of staff to plan lessons over the next half term.
- Provide information/evidence to feed into end of year assessments.

Assessment results are recorded on the Target Tracker program. The program measures the individual progress of pupils over the year, and also tracks their longer term progress over each Key Stage.

The program can then be used by teachers to identify and target individual pupils not making expected progress.

### ***Long Term Assessment***

Toward the end of the school year, children's progress and attainment is formally assessed and reviewed against school and national targets, drawing on test results, target tracker data and any supplementary notes.

EYFS pupils are assessed using the EYFS Profile scores.

A Baseline test is given to each YR child upon entry.

Pupils in Years 2 and 6 complete the National Curriculum Statutory Assessment Tests.

Children's individual end of year attainment and progress is once again recorded and tracked using the Target Tracker program. The data is used to identify pupils who are not making expected progress and this information is passed on to the next class teacher to inform planning and groupings for the following year.

### **Parental Involvement**

When children enter the school, parents are given a copy of the maths handbook 'Helping Your Child with Mathematics'. This details a brief outline of how parents can help their children at home in the use and application of mathematics.

The website shows the Calculation policy and overview for Maths for each year group.

In addition, children in Reception (EYFS 2), KS1 and KS2 are given weekly maths homework sheets to take home to support their learning in class. Mathematics is also intended to support learning at home.

### **Resources**

Every classroom has an easily accessible mathematics area that is clearly labelled.

This area should contain the necessary equipment and apparatus for children to access the mathematics activities taught in class and may include; number lines, digit cards, place value cards, 100 squares, sets of shapes and measuring equipment relevant to the age of children being taught.

There is also a central resource area where additional maths apparatus is stored.

Equipment for specific topics may be borrowed and returned as necessary.

St Mary's uses a variety of published materials to facilitate the teaching of mathematics, but recognises the teaching of mathematics should be 'scheme assisted not scheme driven.' Although the main published scheme used to support the delivery of

Mathematics in both KS1 and KS2 is the New Collins Primary Maths Scheme, a variety of other books and materials are also used by teachers.

### **Health and Safety**

For Health and Safety guidelines, please refer to the school's Health and Safety Policy.