



Mathematics Policy

Mission Statement

Jesus light our way on our faith journey.
Be our guide, our joy and our hope, as we learn, live, love and pray together.

Mathematics is a tool for everyday life, which equips us to make sense of the world around us, by developing the ability to reason logically, calculate and to think in abstract ways. It enables us to analyse and communicate information and ideas and to tackle a range of practical tasks and real life problems.

Mathematics is a creative discipline. It can simulate moments of pleasure and wonder when a pupil solves a problem for the first time, discovers a more elegant solution to that problem, or suddenly sees hidden connections.

Our school practice should provide opportunities which reflect the cultural diversity of our school, community and locality.

AIMS AND OBJECTIVES

The mathematics teaching at St Joseph's Catholic Primary School is geared towards enabling each pupil to develop within his or her capabilities; not only the mathematics skills and understanding for later life, but also an enthusiasm and fascination about maths itself.

Our general aims are:

- *To develop a positive attitude towards mathematics*
- *To develop confidence and competence in mathematical knowledge, skills and understanding through the processes of teaching, learning, enquiry and experimentation*
- *To develop an ability to problem solve, reason, think logically and work systematically with accuracy*
- *To develop initiative and an ability to work both co-operatively and independently*
- *To develop an ability to communicate, use and apply maths across the curriculum and in real life*

Leading to

- *Greater understanding, confidence and competence with number systems and measurement*
- *Greater spatial awareness and understanding of the properties of 2D and 3D shapes*
- *Ability to explain and communicate methods and reasoning in problem solving*



- *Rapid mental recall of number facts*
- *A variety of computation skills (written and mental)*
- *The ability to solve problems in and out of context*
- *An understanding of the various ways of gathering, presenting and interpreting data*
- *Correct and consistent use of mathematical language and notation*

EQUAL OPPORTUNITIES AND INCLUSION

It is our policy at St Joseph's Catholic Primary School, that all children have access to a broad and balanced curriculum. To achieve this, we ensure that every child's learning experiences match their needs by differentiating tasks, resources and support. This includes those children who are operating both above and below the level of their year group objectives.

CHILDREN WITH PARTICULAR NEEDS

Teachers will aim to involve all pupils fully through differentiation in the daily lesson.

Children with special educational needs and difficulties may need to be supported with their own individual teaching plan (ITP) for part or all of a lesson depending on their needs. This might involve withdrawing the child or a small group from the main lesson and working in a less demanding environment, with a view to promoting greater progress.

Additionally, Gifted and Talented children - identified by the class teacher -are given opportunities to develop laterally and with independence. This will be achieved through challenging activities and tasks and games, which allow them to broaden their understanding of Maths.

EAL

Strategies to support EAL pupils in maths lessons:-

- *Display key vocabulary and mathematical terminology, relative to the particular topic that is being covered*
- *Model sentences in speaking, listening, reading and writing*
- *Using visual stimulus and concrete objects to assist in the delivery of teaching and learning*
- *Repetitive maths language games*
- *Lessons paced at an appropriate rate to enable EAL pupils to understand and process information accordingly.*
- *Pairing children speaking the same language (peer group talk is important in helping children to make sense of, and apply, mathematical ideas.)*
- *Simplify method of presenting learning intentions.*

When planning, teachers will use simplified or modified tasks (where appropriate) in order to accommodate for a particular child's needs.



THE NATIONAL CURRICULUM AND THE NATIONAL RENEWED MATHEMATICS FRAMEWORK.

This policy on the teaching and learning of mathematics is based on the New National Curriculum for Mathematics.

Mathematics is a core subject in the National Curriculum and our teaching is guided by the Foundation Stage Curriculum for Early years and on the N.C. yearly programmes of study for Key Stage 1 and Key Stage 2. By working to the NC termly overviews for each year group, we are able to ensure our teaching offers continuity, progression and full coverage. It allows us to offer the children a balanced curriculum, in which there are many opportunities to revisit and consolidate skills as well as introduce new ones.

It also provides a focus for monitoring children's progress, both as individuals and in year groups.

Planning

Maths is a core subject in the National Curriculum. We use the 2014 English National Curriculum as the basis for implementing the statutory requirements of the programme of study for Maths.

We carry out the curriculum planning in Maths in three phases (long-term, medium-term and short-term). The National Curriculum for Maths details what we teach in the long-term. Our yearly teaching programme identifies the key objectives in Maths that we teach to each year.

Our medium-term plans, are in the form of the themed-curriculum overviews, which take place every half-term. Teachers meet with the SLT and identify the curriculum areas and skills that will be taught over the half term. Through these staff will look for ways to ensure that Maths can be incorporated into other subjects to encourage cross-curricular learning.

Short-term planning is done weekly – teachers plan for the lessons to be covered each week in their relevant year group. All lessons are planned with reference to the Maths learning objectives and these will be noted in the teachers planning. This helps to ensure that plans are completed with particular Maths skills incorporated into lessons – these are also referenced in the learning objective for each lesson. Weekly lesson plans include a: 'Calculation of the Day' starter activity; main activity, which will be differentiated as deemed necessary by the class teacher; and a plenary to recap learning or move learning on to the next stage.

Resources

Resources for the delivery of mathematics are stored both in class rooms and in designated areas for each phase.

St Joseph's Catholic Primary School uses a variety of published materials to facilitate the teaching of mathematics, but recognises the need for the teaching of maths to be 'scheme assisted not scheme driven.'

Each year group has access to a 'resource box' (stored in each main classroom), which includes a range of practical apparatus that may help pupils in their understanding of Maths. Children are aware of what this box is and how it can help them, and know that they are free to take and use any resources they need during a lesson.

As part of a new Singapore Maths initiative to provide a more secure understanding of



number, the use of '5 frames' and '10 frames' have been introduced. This will primarily be used in Early Years and Key Stage 1, but where necessary, will also be used in Key Stage 2 to help any lower ability children build a stronger understanding of number.

Display

We recognise the important role classroom display has in the teaching and learning of mathematics. Each class has mathematics board in the main teaching area which is a 'working wall' and has mathematical vocabulary and relevant materials that provide visual support for the children's mathematical thinking.

Homework

Maths homework is set in accordance with the homework policy. In addition teachers can give a homework activity weekly in the form of an investigation, observations, to practice key skills or learn number or multiplication facts.

Teaching Methods and Approaches

The teaching of maths at St Joseph's Catholic Primary School provides opportunities for:

- *group work*
- *Paired work*
- *Whole class teaching*
- *Individual work*

Pupils engage in:

- *Written methods*
- *Practical work*
- *Investigational work*
- *Problem- solving*
- *Mathematical discussion*
- *Consolidation of basic skills and routines.*

At St Joseph's Catholic Primary School we recognise the importance of establishing a secure foundation in mental calculation and recall of number facts before standard written methods are introduced.

A variety of teaching styles will allow for children's individual learning styles to be catered for.

Children must be taught the appropriate language linked to the concepts they are being taught. This should occur at all levels. Children must know and be encouraged to use the vocabulary in the right context.

We endeavour to set work that is challenging, motivating and encourages the pupils to talk about what they are learning.

Assessment, Record Keeping and Reporting

At St Joseph's Catholic Primary School we are continually assessing our pupils and recording their progress. We see assessment as an integral part of the teaching process and endeavour to make our assessment purposeful. This allows us to match the correct level of work to the needs of the pupils, therefore benefiting the pupils and leading to increased progress.



Methods of Assessment

Mathematics can be assessed in a variety of ways:

- Observations of child or group on task
- Discussion with children about their task
- Work in books
- Children's own evaluation of their work
- Mental arithmetic tests
- Arithmetic and Reasoning tests.

These assessments:

- Inform future planning
- Inform potential changes to groupings in class
- Highlight and identify which pupils may need further intervention and support
- Provide summative information
- Provide information for parents
- Provide information for governors and school leaders

Assessment is carried out on three levels

Short-term assessments are an informal part of every lesson and are closely matched to the teaching objectives. The pertinent comments are recorded as part of the evaluation on the short-term planning sheets for particular children (formative assessments).

Medium term assessments are carried out every half-term. The purpose of these assessments is to review and inform. Children's progress against the key Maths learning objectives is recorded and the relevant progress tracking tools are updated.

Long term assessments are carried out in the summer term, when pupils' attainment is measured (against school and national targets) in accordance with how each child has performed against their age related Maths learning objectives. This is collated by reviewing teacher assessments, evidence measured against the NC maths learning objectives and any relevant test scores. All of which will show whether a pupil is Emerging, Developing or Secure at Age Related Expectation.

All parents receive an annual written report in which there is a summary of their child's effort and progress in mathematics over the year.

At the end of Key Stage 1 and across Key Stage 2 each pupil's level of achievement is included as part of their annual written report.

Marking

Work will be marked in accordance with the school marking policy. 'Gap Tasks' will be set in order to help pupils secure a particular skill or challenge and extend their learning in relation to a particular skill



ICT

Children have access to calculators, interactive whiteboards and computers. ICT is used to enhance the teaching and learning of mathematics where appropriate.

Cross-Curricular Links

Mathematics contributes to numerous other subjects across the curriculum, often in practical ways. At St Joseph's Catholic Primary we aim to deliver mathematics as a direct link with the whole Curriculum, therefore making the subject relevant to the children in many ways, encouraging them to make links between Mathematics and other subject areas.

The implementation of this policy is the shared responsibility of all staff.

The review date will be_____.

A named member of the school's governing body is briefed to oversee the teaching of Maths.

This policy will be reviewed at least every two years.

Signed:

Date: May 2016