MATHEMATICS POLICY

Together, we learn, love and grow with Jesus

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This policy reflects the values and philosophy of St. Jude's in relation to the teaching and learning of mathematics.

It provides a framework for all staff which includes guidance on planning, assessment, recording and reporting in Mathematics. It offers guidance on teaching styles and opportunities for meeting the needs of all pupils, as well as giving advice on equality.

Mathematics helps us to make sense of our world, providing a means of communication using numbers, symbols and shapes. It is a means of calculating, reasoning and solving problems in everyday life.

AIMS

Through the teaching and learning in Mathematics at St. Jude's, we aim:

* To promote enthusiasm and to develop a positive attitude and interest in mathematics
* To develop ability to think logically and to work systematically and accurately
* To develop a deeper understanding of mathematics through enquiry and investigation.
* To develop an understanding of the connectivity of patterns and relationships within mathematics
* To develop an ability to solve mathematical problems and reason, independently and co-operatively.
* To promote confidence and competence with numbers and the number system.
* To promote enjoyment of learning through practical activity, exploration and discussion
* To develop an ability to transfer and apply mathematical knowledge in different mathematical contexts and, where possible, across the whole curriculum
* To understand the importance and uses of mathematics in everyday life and develop the ability to apply knowledge, skills and ideas in real life contexts outside the classroom, and become aware of the uses of mathematics in the wider world
* To develop pupils use of spoken language, using mathematical vocabulary to describe, explain, convince, justify and prove

* To develop personal qualities such as perseverance, independent thinking, cooperation and self-confidence through a sense of achievement and success
* To create an environment where children will 'have a go' and understand that making mistakes is part of the learning process
* To assess and monitor the performance of pupils in order to plan work which matches their individual abilities
* To ensure that all pupils, regardless of gender, class, culture or disability have equal opportunities to develop their full potential in mathematics

CURRICULUM

Each class teacher is responsible for the mathematics in their class in consultation with and with guidance from the mathematics leader.

FOUNDATION STAGE

At Early Years Foundation Stage, practitioners use the Early Years Development Matters to support them in providing opportunities for pupils to broaden their mathematical thinking through age appropriate structured play, investigations and fun practical experiences.
This ensures that pupils are working towards the Early Learning Goals for Mathematics. We give all the pupils the opportunity to develop their understanding of number, measurement, pattern, shape and space through varied activities that allow them to enjoy, explore, practise and talk confidently about mathematics.

At Key Stage 1 and Key Stage 2, in order to meet the requirements of the National Curriculum, our school uses and adapts the White Rose Scheme, which we then underpin with NCETM (National College for Excellence in the Teaching of Mathematics) maths guidance to ensure that all of our children are ready to progress to the next step of their learning.

Our Long Term Plan gives an outline of what we teach each year group. Our *medium term* plans, which give details of the main teaching objectives within each Block/Unit, define what we teach. They ensure an appropriate balance and distribution of work across each term. The class teacher produces *short term* weekly plans, as teaching powerpoints, for the teaching of mathematics. These powerpoints detail the specific learning objective for each lesson, and the journey through the lesson.

PLANNING

The approach to the teaching of mathematics within the school is based on three key principles:

- A mathematics lesson every day
- A clear focus on direct, instructional teaching and interactive oral work with the whole class and/or group
- An emphasis on vocabulary and mental calculation
- An opportunity to problem solve and/or reason

A daily lesson (between 45 and 60 minutes) takes place in each class.

We plan the activities in mathematics so that they build on pupil's prior learning.

Lessons are planned using a common planning format and are monitored by the Mathematics leader and the Senior Leadership Team.

A Mastery approach is used when planning. Teachers plan for concrete objects, pictorial representations and numbers/symbols to be used within the teaching input and within individual, guided and group work to support understanding of mathematical concepts and develop a deep understanding.

The curriculum is delivered following the Mental to Written Calculations policy.

CLASSROOM ENVIRONMENT

In every classroom at St.Jude's, we have a maths working wall which facilitates learning. In order to further promote independence, staff provide resource scaffolds so that the children can use them to support their learning.

In Early Years Foundation Stage, Mathematics is incorporated into other areas of Continuous Provision to reflect and enable children to practice current learning in Mathematics or to reinforce/extend previous learning.

INCLUSION and EQUAL OPPORTUNITY

Our Inclusion and Equal Opportunities Policy applies to mathematics.

Pupil's performance is monitored to ensure that no group of pupils is disadvantaged. In lessons, the full participation of all children is encouraged regardless of ability, sex and sexual orientation, race, religion or belief, social

background, culture or disability. We strive hard to overcome barriers and meet the needs of those pupils with Special Educational Needs, those with disabilities, those with special gifts and talents and those with English as an additional language.

EAL
We support pupils with EAL in a variety of ways including repeating instructions, emphasising key words, using picture cues, playing mathematical games and giving additional support when necessary.

SEN
At St. Jude's we aim to ensure that every pupils makes maximum progress and achieves the very best they can in mathematics. Teachers set high expectations for every pupil, planning challenging and engaging learning as well as offering support when required.

We recognise that children come to Mathematics with different starting points, different strengths and different attitudes. However, we strive for all children to make good progress.

Pupils who do not make expected progress will be quickly identified and appropriate action is taken. In consultation with the SENDCO, intervention strategies are put in place and outside agencies become involved to offer support. Child Centred Plans (CCP's) for pupils with special educational needs are created which may include specific targets relating to mathematics.
Pupils with special educational needs are taught within the daily mathematics lesson and are provided with extra targeted support from the class teacher or teaching assistant.

Activities are also provided to challenge pupils who are high achievers in Mathematics. Through their effective deployment during all aspects of the lesson, support staff contribute to ensuring this.

Verbal feedback is given by support assistants to update the class teacher on the progress of individuals.

The National Curriculum for Mathematics states that: *'The expectation is that the majority of pupils will move through the programmes of study at broadly the same pace. However, decisions about when to progress should always be based on the security of pupils' understanding and their readiness to progress to the next stage.*

Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content. Those who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice, before moving on.'

RECORDING

Children are taught a variety of methods for recording their work and they are encouraged to use the most appropriate and efficient method of recording.
See Mental to Written Calculations policy for expectations and progression in recordings.

All children are encouraged to work tidily when recording their work.
See Marking Policy for guidelines on expectations in presentation.

MARKING

See Marking Policy

ASSESSMENT and RECORDING

At St. Jude's we monitor and record children's progress in Mathematics using various assessment methods and practices.

Teachers make regular assessments of each child's progress (each half term) and record these on out whole school tracking system (Target Tracker). All assessments are monitored by SLT and reported to Governors.

Assessment forms an integral part of the teaching process as it informs and guides future planning. This takes various forms including:

- <u>Formative Assessment</u>
  Assessment is an integral and continuous part of the teaching and learning process at St. Jude's and much of it is carried out informally as part of each teacher's day to day work. Teachers integrate the use of formative assessment strategies such as: effective questioning, clear learning objectives, the use of success criteria, effective feedback and response in their teaching and marking and observing pupils participating in activities. Findings from these types of assessment are used to inform future planning.

- <u>Summative Assessment</u>
  -Formal assessments are used at various points throughout the year to determine the level of achievement

-Termly assessments assess progress in the key learning objectives for each area of Mathematics
-Standard Assessment Tasks and Tests are used at the end of each term – NFER materials, Past SATS papers
-Statutory End of Key Stage Assessments at the end of Key Stage 1 and Key Stage 2.
-Pupils working in Reception are tracked through 'Development Matters' statements for Mathematics. At the end of Early Years, a summative assessment is made using the Foundation Stage profile.

Teachers analyse results to identify those who have not reached expectations or those who have exceeded these expectations. This informs the discussion at Pupil Progress Meetings.

Tests at the end of the year are used to assess progress against school and national targets.

Pupils are involved in assessing their own learning. Clear learning objectives (LO) and steps to success, support children in identifying the strengths and areas for development in their own and their peers work.

REPORTING

At the end of the Summer Term, Parents/Carers receive an annual written report on their child's progress and achievements in mathematics. Parents/Carers are invited into school twice yearly to discuss their child's attainment and achievement in mathematics and look at their work.

HOMEWORK

Homework activities (including on-line learning platforms) are provided to consolidate children's learning and to provide parents and carers with opportunities to work with their children at home.

RESOURCES

- All classrooms have a wide range of appropriate everyday small apparatus which are easily accessible to children.
- Resources which are not required regularly are stored centrally.
- Regular reviews of resources take place to ensure that resources are adequate

- A range of ICT and interactive resources are used in class and in the ICT suite to support teaching and learning of mathematics

MONITORING AND REVIEWING

The Mathematics leader and the Senior Leadership Team are responsible for the monitoring and evaluating the quality and standards of mathematics throughout the school. It is monitored through:

- Classroom observation
- Scrutiny of pupil's work
- Discussion with pupils
- Scrutiny of planning
- Use of assessment tracking to evaluate pupil, group or cohort progress
- Staff Meetings and Senior Leadership Team meetings

The work of the Mathematics leader involves supporting colleagues in the subject and providing a strategic lead and direction for the subject in the school. The leader has leadership and management time in order to monitor and evaluate the quality and standards of mathematics. Time is given to review samples of pupil's work and undertake lesson observations of Mathematics teaching throughout the school.

GOVERNOR

Mr Hunt is the Mathematics governor.
The mathematics leader reports to the curriculum committee on a regular basis.