We ***place our children at the heart of all we do***,

inspired by the love, life and teachings of Jesus.

"I am the way, the truth and the life."

(John 14:6)

Nurture, **Prepare**, **Support**, **Enable**

St Mary's Catholic Primary School
Policy on Mathematics

Rationale:

At St Mary's we aim to inspire all children to reach their full academic potential. In mathematics this means ensuring a curriculum that is fully inclusive of all children which:

- Develops children's knowledge and understanding of Mathematical concepts whilst enabling them to practice and hone skills and methods;
- Enables them to think critically and communicate their understanding;
- Gives them opportunities to apply learnt mathematical skills in different contexts across the curriculum.
- Provides opportunities to develop problem solving skills useful for maths and across the curriculum.

This policy is set within the context of the school's vision, aims and policy on teaching and learning. As a result of their learning in mathematics and problem solving across the curriculum children will:

- Be prepared for applying their skills effectively in everyday life situations, in their future learning and in the work place.
- Have the building blocks in place and provide a solid foundation to lead onto secondary, further and higher education.
- Through teaching with a problem-solving approach, children will learn to understand, distil and clarify information; consider what they know that will help them to solve problems, realizing what they need to know next; create systems and strategies, organizing information in a way that helps find patterns and ultimately solutions and to communicate and present their findings effectively.

Teaching and learning style:

The school uses the Power Maths scheme of work. Our principal aim is to develop children's knowledge, skills and understanding. During our daily lessons, we encourage children to ask as well as answer mathematical questions. They have the opportunity to use a wide range of resources, such as number lines, Denes apparatus and Base 10, number squares, tens frames, place value cards, bar methods and small apparatus to support their work. Wherever possible, we encourage the children to apply their learning to everyday situations.

In all classes, children have a wide range of mathematical abilities. We recognise this fact and provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child. We achieve this through a range of strategies –through group work and by organising the children to work in pairs on open-ended problems or games. We use teaching assistants to support some children in cut away group work and interventions and we ensure that work is matched to the needs of individuals.

Mathematics planning:

- We follow a spiral curriculum which builds on components of knowledge and concepts over time; revisiting is crucial to embedding knowledge and recall forms part of this skills through revisiting and applying.
- Medium term planning will outline the areas of mathematics that will be taught during the term to ensure coverage of the National Curriculum.
- Within short term planning, clear success criteria for each learning objective taught. This will enable the class teacher to follow a clear and systematic teaching sequence, where input and activities are matched through a mastery approach.
- Where children are working significantly above the objective children are challenged to ensure deepening of understanding of maths through a variety of applications.

EYFS:

At St Mary's we recognise the importance of ensuring a sound mathematical ability built on real-life, contextual experiences.

Within the EYFS, children are provided with opportunities to explore number, patterns, measure, shape and space. Both inside and outside of the classroom, learning encourages the application and exploration of mathematics and activities are planned in line with the Early Learning Goals. EYFS also follow the Power Maths scheme of work.

Mathematics and ICT:

Information and communication technology enhance the teaching of mathematics significantly, because ICT is particularly useful for mathematical tasks. It also offers ways of impacting on learning which are not possible with conventional methods. Teachers can use software to present information visually, dynamically and interactively, so that children understand concepts more quickly. Younger children use ICT to communicate results with appropriate mathematical symbols. Older children use it to produce graphs and tables when explaining their results, or when creating repeating patterns, such as tessellations. When working on control, children can use both standard and non-standard measures for distance and angle. They can also use simulations to identify patterns and relationships. We use IXL for maths and Times Tables Rockstar's. Pupils are also able to use IT to present data sets in year 5 and 6.

Assessment for learning:

- Assessment for learning should occur throughout the entire maths lesson, enabling teachers/teaching assistants to adapt their teaching/input to meet the children's needs. This feedback is incisive and regular.
- On a daily basis, children should self-assess against the learning objective giving them a sense of success. Children should know when they are meeting their targets and be self-assessing against those too.
- Pupil's work should be marked in line with the Marking Policy and should model how corrections should be made, giving children a chance to learn from their misconceptions or incorrect methods as well as next step marking as and when needed.
- Future lesson design should depend on class success evaluated through marking and observations made during the lesson.
- Assessment of pupil work and progress is ongoing by the class teacher and informs future adaptation of planning. Teachers mark work in mathematics in line with the school marking policy. Teachers use an agreed assessment tool and this allows them to assess children's progress in mathematics, gathering evidence over the course of the year. Teachers use this information to inform planning for groups and individual pupils.

- Summative assessments are made at least once per half term in order to provide further understanding of the level a child is working at and to inform a more rounded judgement of their abilities.
- Tracking is used in order that children who are not making good progress over time can be targeted for support in one form or another. What that support will be and how intensive, depends upon the child's needs and it may be a simple strategy within whole class teaching that is needed. Where further support is deemed necessary, children can access well planned interventions.

Display and Resources:

- In the classrooms there should be, either on display or easily accessible to children, appropriate resources, particularly concrete and pictorial apparatus to support children to grasp concepts.
- Mathematical vocabulary should be displayed so that children use this in the communication of their understanding.
- Mathematical working wall should demonstrate the key area of learning and also worked examples of calculations and learning specific to the key concept.

Monitoring and review:

The coordination and planning of the mathematics curriculum are the responsibility of the subject leader, who also:

- supports colleagues in their teaching, by keeping informed about current developments in mathematics, and by providing a strategic lead and direction for this subject including running CPD.
- gives the headteacher and governors an regular summary and analysis reports in which they evaluate the strengths and weaknesses in mathematics, and indicate areas for further improvement;
- uses specially allocated regular management time to review evidence of the children's work, pupil voice and to observe mathematics lessons across the school.

This policy will be reviewed at least every year

Alison McDonald

Date: 19.9.22