

Mathematics and Numeracy Policy

At St. Mary's Primary School we believe that Mathematics is an integral part of our day to day life. Mathematics involves observing, representing and investigating patterns and relationships in social and physical phenomena and between mathematical objects themselves. It provides opportunities for development of reasoning abilities.

Mathematics is an integral part of our culture. It can enhance our understanding of our world and the quality of our participation in society. It is valuable to people individually and collectively, providing important tools, which can be used at the personal, civic and vocational levels.

Mathematical ideas about number, space & geometry, measurement, data, patterns and algebra are used in everyday life. Mathematics can also be a part of our leisure. Mathematics is a source of interesting and appealing puzzles and problems. When enjoyable, it encourages curiosity, exploration, discovery and invention as well as the development of a sound mathematical knowledge and skill.

St. Mary's Primary school strives to educate the whole person, mind, body and spirit with the awareness that all human values find their fulfilment and unity in Jesus Christ. Mathematics is a key contributor to the school's development of the whole person

At St. Mary's Primary School, we understand numeracy to be:

“the ability to use mathematical ideas efficiently to make sense of the world. It is a fundamental component of learning across the entire curriculum.”

Thus, at St Mary's Primary School, numeracy is addressed across all Key Learning Areas. Numeracy is implicit in the broader curriculum. Teachers ought to seek to highlight numeracy and numeracy related skills whenever they arise within any teaching learning context regardless of KLA. It is important to note, that whilst the Mathematics KLA has a crucial role to play in numeracy development, we need to view numeracy in a wider sense than as merely an aspect of mathematics.

The planning for numeracy aims to encourage children to be active, engaged learners who take risks, challenge themselves and their understandings, thus taking responsibility for their learning. The ability to question, challenge, estimate, verify and creatively think is central to effective, relevant numeracy learning.

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Numeracy and Mathematics The specific skills of numeracy are taught in the Mathematics KLA. Mathematics lessons are conducted in every class. We use the NSW Board of Studies K- 6 Mathematics Syllabus, 2002 as the basis of our Mathematics Curriculum.

Numeracy and Learning In order to engage the learner, concrete materials, "hands on" tasks and open-ended enquiry based tasks form the basis of our numeracy plan.

The Goals of Numeracy

The goals of Numeracy teaching at St. Mary's Primary School are to:

☑ To provide teaching and learning strategies in Numeracy that are designed to meet students' individual styles and needs which enable them to engage in challenging activities that maximize the development of their own abilities;

- To create in students, favourable attitudes towards, and stimulate interest in numeracy.
- To develop in students a sound understanding of concepts, processes and strategies and the capacity to use these in solving problems.
- To challenge students to achieve at a level of accuracy and excellence appropriate to their particular stage of development.
- To encourage students to have a positive self-concept so to enhance lifelong learning in Numeracy that will enable students to effectively make sense of the world;
- To be given opportunities to apply a variety of analytical and creative techniques individually, as a class and in small groups;
- Students need to be given opportunities to reflect on their own learning in Numeracy so they can consolidate and evaluate to make their own learning more meaningful;

BELIEFS ABOUT TEACHING AND LEARNING IN NUMERACY

We believe that student's numeracy development is enhanced when the following beliefs are evident in numeracy teaching K-6.

1. All students have the capacity and the right to learn and the need to experience successful learning.

Therefore;

o Whole school programs will be continually monitored and evaluated to ensure that the children have experience of quality programs and successful learning.

2. All students are individuals who learn at different rates, with different strengths and with a variety of preferred learning styles.

Therefore

o Class programs will be based on knowledge of individual learning needs and differentiated to cater for these needs.

3. Learning is lifelong, continuous, developmental and holistic; students need to learn how to learn and to actively evaluate their learning.

Therefore, proficiency in Mathematics is best developed when skills and content are taught in a systematic, developmental, context-based and holistic way.

4. Teaching and learning need to take place within a context of high expectations and within a positive, supportive environment.

Therefore, the teacher needs to provide structures, scaffolds and challenging learning contexts, where adequate and appropriate resources are provided and sufficient, dedicated time is allocated to the teaching and learning of Mathematics.

5. Effective learning occurs when students are engaged in learning contexts that are collaborative and draw upon prior experiences, knowledge, understanding and skills.

Therefore, learning in Mathematics is best when it occurs within a collaborative environment that structures group work and allows for the supportive and critical mutual sharing of experiences, skills and ideas.

6. Teaching and learning is informed by explicit assessment and feedback, which in turn will inform future learning pathways.

Therefore, Class programs are based on authentic assessment and evaluation.