



MATHEMATICS

POLICY

Rationale:

Mathematics pervades all aspects of our lives. It has applications in all human activities, crossing cultural and linguistic boundaries to provide a universal way of solving problems in such diverse areas as science and engineering, business and finance, technology, arts and crafts and everyday activities. The study of mathematics enhances both our understanding of the world and the quality of participation in society.

Beliefs:

At Cana Catholic Primary School we believe that mathematics is an integral component of our curriculum. We believe learning mathematics should be a positive experience in which students develop confidence and a sense of achievement from what they learn.

We believe that learning mathematics involves knowing mathematical facts, being able to carry out mathematical procedures and being able to use mathematics in solving problems and describing and understanding the world. Teachers need to provide the opportunity for students at every level of schooling to work mathematically in ways that develop:

- Knowledge of facts and technical skills
- Depth of conceptual understanding
- Ability to communicate using clear and precise mathematical language
- Ability to apply what has been learned to solve real problems
- Ability to conduct investigations using mathematics
- Ability to tackle non-routine problems systematically
- Logical reasoning and a conception of the nature of proof
- Practical ability in measuring, estimating and making sensible use of calculators and computers

We believe that the assessment of mathematics is a continual process and that assessment should take a variety of forms.

Goals:

Through learning mathematics in school, students will work towards the following goals:

- Recognise the fundamental importance of mathematics to the functioning of society
- Acquire mathematics skills and knowledge so they can deal confidently and competently with daily life
- Develop knowledge and skills in using mathematics for employment, further study and interest
- Be able to interpret and communicate mathematical thinking, the processes by which mathematics changes and its cultural role
- Understand the dynamic role of mathematics in social and technological change
- Use technology to support the learning of mathematics, and to carry out mathematical activities.

Implementation:

Our school mathematics program is based on the Victorian Curriculum in conjunction with the AusVELS curriculum.

- The Victorian Curriculum: Mathematics is organised around the interaction of three content strands and four proficiency strands. The content strands are *Number and Algebra*, *Measurement and Geometry*, and *Statistics and Probability*.
- The proficiency strands are *Understanding*, *Fluency*, *Problem Solving*, and *Reasoning*. They describe how content is explored or developed, that is, the thinking and doing of mathematics. They provide the language to build in the developmental aspects of the learning of mathematics. This approach has been adopted to ensure students' proficiency in mathematical skills develops throughout the curriculum and becomes increasingly sophisticated over the years of schooling
- The proficiency strands *Understanding*, *Fluency*, *Problem Solving* and *Reasoning* are an integral part of mathematics content across the three content strands: *Number and Algebra*, *Measurement and Geometry*, and *Statistics and Probability*. The proficiencies reinforce the significance of working mathematically within the content and describe how the content is explored or developed.

Assessment:

Assessment of the Victorian Curriculum in Mathematics takes place in different levels and for different purposes, including:

- Follow assessment and reporting policy
- Ongoing formative assessment within classrooms for the purposes of monitoring learning and providing feedback, to teachers to inform their teaching, and for students to inform their learning.
- Students' progress will be monitored and recorded in a variety of ways such as observation, checklists, ability to complete computations independently, tests, investigation tasks and share time.
- Teachers to use the information from assessment to identify students' strengths and challenges and to assist with the development and implementation of the unit and 'Personal Learning Plans' as required.
- Summative assessment for the purposes of twice yearly reporting on the progress and achievement of students.
- Annual testing of Years 3 and 5 students' levels of achievement in aspects of literacy and numeracy, conducted as part of the National Assessment Program – Literacy and Numeracy (NAPLAN).
- Periodic sample testing of specific learning areas within the Victorian Curriculum as part of the school based program.

This policy was last reviewed in 2019.