



Stella Maris

Catholic Primary School

113 OAK STREET, BEAUMARIS 3193 TELEPHONE 9589 2641 WWW.SMBEAUMARIS.CATHOLIC.EDU.AU

Mathematics Policy 2021

1. Rationale & Aims

Mathematics provides students with access to important mathematical ideas, knowledge and skills that they will draw on in their personal and work lives. The curriculum also provides students, as life-long learners, with the basis on which further study and research in mathematics and applications in many other fields are built. Mathematical ideas have evolved across societies and cultures over thousands of years, and are constantly developing. Digital technologies are facilitating this expansion of ideas and provide new tools for mathematical exploration and invention. While the usefulness of mathematics for modelling and problem solving is well known, mathematics also has a fundamental role in both enabling and sustaining cultural, social, economic and technological advances and empowering individuals to become critical citizens.

Number, measurement and geometry, statistics and probability are common aspects of most people's mathematical experience in everyday personal, study and work situations. Equally important are the essential roles that algebra, functions and relations, logic, mathematical structure and working mathematically play in people's understanding of the natural and human worlds, and the interaction between them.

The Mathematics curriculum focuses on developing increasingly sophisticated and refined mathematical understanding, fluency, reasoning, modelling and problem-solving. These capabilities enable students to respond to familiar and unfamiliar situations by employing mathematics to make informed decisions and solve problems efficiently. The curriculum ensures that the links between the various components of mathematics, as well as the relationship between mathematics and other disciplines, are made clear.

Mathematics is composed of multiple but interrelated and interdependent concepts and structures which students apply beyond the mathematics classroom. For example, in Science, understanding sources of error and their impact on the confidence of conclusions is vital; in Geography, interpretation of data underpins the study of human populations and their physical environments; in History, students need to be able to imagine timelines and time frames to reconcile related events; and in English, deriving



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quantitative, logical and spatial information is an important aspect of making meaning of texts.

Aims

The Mathematics curriculum aims to ensure that students:

- develop useful mathematical and numeracy skills for everyday life, work and as active and critical citizens in a technological world
- see connections and apply mathematical concepts, skills and processes to pose and solve problems in mathematics and in other disciplines and contexts
- acquire specialist knowledge and skills in mathematics that provide for further study in the discipline
- appreciate mathematics as a discipline – its history, ideas, problems and applications, aesthetics and philosophy.

<https://victoriancurriculum.vcaa.vic.edu.au/mathematics/introduction/rationale-and-aims>

2. Goals

The Mathematics program aims to:

- 2.1 Maximise Mathematical potential by providing planned, sequential and explicit teaching of Number and Algebra, Measurement and Geometry and Statistics and Probability.
- 2.2 Develop understandings which enable students to reflect and share their mathematical thinking and strategies.
- 2.3 Provide challenging and supportive open-ended investigations that engage all students.
- 2.4 Encourage students to work collaboratively with their teachers to develop personal learning goals.
- 2.5 Develop an appreciation and enjoyment of Mathematics.
- 2.6 Encourage and assist students to realise that Mathematics is relevant to them personally and globally in the Contemporary World.
- 2.7 Assist students to make connections to everyday use of Mathematics.



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2.8 Develop an understanding of the use of mathematical equipment, e.g. compass, scales, rulers etc.

2.9 Develop speed and accuracy in computational skills consistent with the students' stages of development.

2.10 Develop skills in the use and understanding of relevant Mathematical language.

3. Implementation

The Mathematics program at Stella Maris will:

3.1 Use the Australian Curriculum to determine the sequential learning focus from Foundation to Year Six.

3.2 Provide a weekly program that consists of a minimum of five hours of Mathematics.

3.3 Plan daily Mathematics sessions which are flexible (a combination of explicit and open-ended tasks) to provide opportunities for students to apply key skills to enhance their understanding of mathematical concepts.

3.4 Use the annual, and weekly Mathematics planners; including Teacher Focus documents.

3.5 Refer in planning to the CEM - 'Key Ideas for Concept Development in Mathematics' to ensure consistency in strategies and language.

3.6 Ensure all students will have access to resources to support Mathematical learning, both concrete and ICT/online resources.

3.7 Monitor and evaluate assessments, as per the Stella Maris Assessment Schedule. To identify students in need of further support and opportunities for extension. Teachers will be reminded of each term's assessment requirements at the commencement of each term.

3.8 Provide Maths Intervention and support groups which will be offered to identified students needing further assistance based on regular data collection.

3.9 Use ongoing assessment to direct Mathematics sessions to ensure a planned, structured teaching focus that will assist or extend individual students and therefore encourage a differentiated curriculum across the school.



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3.10 Report on student progress in all Strands of Mathematics will be reported in half year and end of year academic reports. Whole school progress will be included in the school's annual report.

4. Core Resources to be used from Foundation to Year Six

Victorian Curriculum -

<https://victoriancurriculum.vcaa.vic.edu.au/mathematics/curriculum/f-10>

Current ICT resources, Essential Assessment, Studyladder, iPad Apps

Relevant teacher resources including: Nelson Maths, i-Maths, Signpost Maths, Maths Plus, E-Maths Mathletics Booklets etc.

5. Professional Development

5.1 External professional learning opportunities for Mathematics Leaders and classroom teachers as required.

5.2 Facilitated level planning with leaders for classroom teachers.

5.3 Regular whole school staff meetings and PLTs

6. Budget

An annual Mathematics budget will support the implementation of the program.

7. Evaluation

This policy will be reviewed annually by Staff as part of the school's policy review process.

8. Achievement Measures

Student achievement against Victorian Curriculum

National Benchmarks and NAPLAN data for Years 3 and 5

Foundation to Year Six School Assessment Schedule, including Essential Assessment, PAT, LFIN, Westwood, Clinical Interviews as deemed necessary

9. Status

This Policy was reviewed by T Ruyg, G Trutsch, B Wightman 2021



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Appendix #1

Belief Statement

Mathematics is best learnt when:

- The study of Mathematics is relevant to student experiences, interests and capabilities.
- Students are encouraged to see the connections between mathematical concepts and their applications relating to the world in which they live.
- Mathematical activities build upon what students already know as a springboard to further learning.
- Students are immersed in mathematical language and experiences, supported by demonstrations, modelling and the use of a variety of approaches and concrete materials.
- Students are given opportunities to work both independently and in cooperative groups that encourage problem solving, the practice of skills and the sharing of knowledge.
- Students are in a supportive environment that encourages them to take risks, ask questions and solve problems to extend their knowledge.
- Open-ended learning experiences are frequently provided.
- Students are encouraged to be autonomous learners and use estimation and be risk takers.
- Students view mathematics as dynamic, practical and creative.
- Students receive regular constructive and meaningful feedback from teachers and significant others.
- Students are given sufficient time to develop the concepts which are introduced – time for thinking, reflecting, reacting and sharing.
- Families are interested and involved in their children's mathematical learning.