

MATHEMATICS POLICY

4.4

Rationale

Mathematics is present in all aspects of our lives - as citizens, in our homes and in the workplace. It has applications in all human activities, crossing cultural and linguistic boundaries to provide a universal way of solving problems. To meet these demands a strong grounding in all four mathematical proficiencies is needed so students can confidently recognise what mathematical thinking is required in a variety of contexts.

Aims

Mathematics aims to ensure that students:

- are confident, creative users and communicators of mathematics, able to investigate, represent and interpret situations in their personal and work lives
- develop an increasingly sophisticated understanding of mathematical concepts and fluency with processes, and are able to pose and solve problems and reason in *Number and Algebra*, *Measurement and Geometry*, and *Statistics and Probability*
- recognise connections between the areas of mathematics and other disciplines and appreciate mathematics as an accessible and enjoyable discipline to study.
- construct, transfer and adapt previous knowledge to new mathematical ideas.

Implementation

Planning

1. The Maths Coordinator(s) will work with a Maths Curriculum Team to plan the priority areas to develop each year in keeping with the Strategic Plan and AIP, the special events for Maths and the priority spending (in consultation with the staff).
2. All teachers are given shared planning time where they will plan sequential Maths units based on the content of the schools Scope and Sequence which is derived from The Victorian Curriculum. This will be differentiated for the needs of the students in the year level.
3. Professional development for teaching staff will be ongoing and multi-faceted.
4. Where possible Maths planning aims to be integrated within our PYP Units of Inquiry.

Maths Lessons & Programs

1. Five hours per week of Maths with each block to include fluency warm up, rich maths discussion, followed by focussed exploration activities and reflective opportunities.
2. Lessons will include open-ended and hands-on activities allowing students to demonstrate their knowledge and share their strategies with their peers and the teacher.
3. The process of 'See, Plan, Do, Check' and the Problem Solving Tool Box will be used to assist students in the problem solving process and to develop effective strategies.
4. Program planning will accommodate students' interest and activities will be based on investigations and be integrated with other learning areas to ensure a transdisciplinary approach.

5. Sharing and reflection time will be an integral part of each lesson or investigation.
6. All students will be enrolled in the Essential Assessment program, which will be integrated into the classroom lessons and form part of the students Maths work at home through the use of My Numeracy.
7. Students will be given the opportunity to participate in other annual Maths programs. These may include: The Maths Challenge, UNSW Assessments, 24 Competition, GATEWays Challenge and Mathletes.

Student Progress and Tracking

1. The assessment and monitoring of Numeracy will be based on the Whole School Assessment Schedule, including the Early Years Interview, OnDemand Testing, Maths Essential Assessment, Common Assessment Tasks, teacher observations and peer and self-assessment.
2. Students' Maths data will be uploaded on to the SPA program (Student Performance Analyser) termly to assist with student progress tracking. The results will be used to monitor performance, as well as to drive program development and delivery.
3. Students who are 'at risk' (6 - 12 months behind) or advanced (12 months ahead) in Maths will be given an ILIP (Individual Learning Improvement Plan) with individualised goals. This will involve a termly meeting with parents to discuss progress.
4. Student progress in Maths will be reported in mid-year and end of year academic reports and during parent/ teacher progress meetings.
5. The Maths Online Interview will be conducted at the start and end of each Foundation Year.

Parental Involvement

1. Parents are encouraged to assist with Maths sessions in the classroom. A 'Working With Children Check' is essential for parents assisting in our school.
2. Parent education programs will be conducted to assist parents in becoming active, informed partners in Maths learning at home and at school.
3. Parents in Foundation as well as new parents to the school will be provided with a Maths pack for the use at home, which contains activity ideas and related Maths equipment to engage families with Maths.

Resources

1. There is a Maths trolley between each double classroom containing everyday essential Maths equipment. Key materials may include counters, unifix, MAB, dice, 100 charts, clocks, flash cards, game boards, etc.
2. The Maths resource room and cupboards (in the Gallery) contain a selection of more specialised Maths equipment (e.g. 3 dimensional shape blocks, trundle wheels) for use when teachers cover those concepts. There is a borrowing library system that all teachers are expected to use to sign out specialised Maths equipment.
3. There is a numeracy library containing a variety of picture storybooks that integrates both literacy and numeracy.

Evaluation

This policy will be reviewed annually as part of our Maths Annual plan and as part of the school's review cycle.

This policy was last ratified by School Council on 3rd August, 2020.