Mathematics Policy

Rationale

At Ormond Primary School we believe that we have a responsibility to ensure that students become effective, numerate citizens, able to meet the demands of school, home, work and the global community.
The curriculum reflects the importance of building a strong foundation of mathematical concepts, skills and processes. Our program focuses on personalising the learning, to engage all students through open ended, exploratory, differentiated and authentic tasks.
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.

Aims

Students should develop positive attitudes and the capacity, confidence and disposition to understand and apply mathematical concepts, problem solve and analyse data.
To be numerate, students will develop an understanding of mathematical thinking within number and algebra, measurement and geometry and statistics and probability strands.
They will be able to:

- Use patterns and relationships to analyse the problem situations
- Justify their answers and the processes by which they arrive at solutions
- Develop mental computation skills and be able to apply them
- Understand and use the metalanguage of mathematics
- Use a variety of digital technologies to support and enhance mathematical learning

Implementation:

- Mathematics should be taught in realistic, relevant contexts where students are actively involved in the learning process.
- It is taught using concrete materials, appropriate technologies and real life experiences.
- Teaching methods will concentrate on the understanding of mathematical ideas before progressing to abstract ideas.
- Students will progress through a sequential program based on a range of group assessments to inform the point of need.
- Students build upon their prior knowledge through teacher scaffolds, which make connections, support new learnings and foster understandings. Reflection on learning is integral.
- The students will be involved in daily numeracy sessions. Teachers will plan a differentiated program with an identified focus group for each lesson as a result of continuous monitoring and assessment of students.
- The program is to be based on the current approved Victorian Curriculum guidelines and supported by the effective learning and teaching practices of the Maths Association of Victoria and Non Negotiables for Effective Numeracy Teaching and Learning at Ormond Primary School.
- The Scope and Sequence supports teachers to easily see the progression and assist in planning teaching and learning programs to meet the diverse needs of students.

Ratified by School Council **March 2016**

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- The curriculum is organised:
  - **Number and Algebra**
    Sub-strands Number and Place Value — Fractions and Decimals
    Real Numbers — Money and Financial mathematics
    Patterns and Algebra — Linear & Non- Linear Relationships
  - **Measurement and Geometry**
    Sub-strands Using Units of Measurement — Shape
    Geometric Reasoning — Location and Transformation
    Pythagoras and Trigonometry
  - **Statistics and Probability**
    Sub-strands Chance — Data Representation & Interpretation

- Assessment needs to occur through procedures that value and identify the student's mathematical understandings. Assessment guidelines, strategies and schedules will be followed. Professional Learning Teams engage in looking at and analysing student data to inform future teaching and learning tasks.

Assessment
Refer to the OPS Assessment Schedule which is reviewed annually.

Key assessment tools are available at the following websites:

Mathematics Online Interview

http://www.education.vic.gov.au/school/teachers/teachingresources/disc

ipline/maths/continuum/Pages/mathsinterview.aspx

Assessment for Common Misunderstandings

http://www.education.vic.gov.au/school/teachers/teachingresources/disc

ipline/maths/assessment/pages/misunderstandings.aspx

Scaffolding Numeracy in the Middle Years

http://www.education.vic.gov.au/school/teachers/teachingresources/disc

ipline/maths/assessment/Pages/scaffoldnum.aspx

Fractions and Decimals Online Interview

http://www.education.vic.gov.au/school/teachers/teachingresources/disc

ipline/maths/continuum/Pages/fracdecint.aspx

Evaluation

Evaluation of the policy is informed by regarding student learning outcomes at all levels of the school. Feedback is also received anecdotally from teachers and the school community.

Renewal and Approval:

This policy will be reviewed as part of the school's four-year review cycle

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