



St. Joseph's Primary School

MATHEMATICS POLICY 2015

RATIONALE

St. Joseph's Primary School Merriwa honours its commitment to quality Catholic education through its provision of high quality educational programs by which each child is enabled to reach their full potential.

(adapted from the school vision statement)

Mathematics is essential for living and is required by individuals in order to function adequately as members of today's society. It provides a means of oral and written communication and provides opportunities for the development of reasoning abilities.

The NSW Syllabus for the Australian Curriculum *Mathematics K–10 (2012)* addresses the knowledge, skills and understanding, as well as the values and attitudes that will enable students to develop an appreciation of mathematics and its application in their everyday lives.

The staff at St. Joseph's acknowledges the importance of this syllabus, as it provides a continuum of outcomes arranged in Stages the content strands (Number and Algebra, Measurement and Geometry, and Statistics and Probability). These strands are used to convey information in many ways. Some of these include explanations, figures, letters, tables, charts, diagrams, graphs and drawings.

AIMS

The aim of Mathematics in K–10 is for students to:

- Be confident, creative users and communicators of mathematics, able to investigate, represent and interpret situations in their personal and work lives and as active citizens.
- Develop an increasingly sophisticated understanding of mathematical concepts and fluency with mathematical processes, and be 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, enjoyable discipline to study, and an important aspect of lifelong learning.

(taken pg 16 NSW Syllabus for the Australian Curriculum Mathematics K-10)

The staff at St. Joseph's aims to assist students in developing knowledge, skills and understanding through:

- Inquiry, application of problem-solving strategies including the selection and use of appropriate technology, communication, reasoning and reflection.
- Mental and written computation and numerical reasoning.
- Patterning, generalisation and algebraic reasoning.
- Collecting, representing, analysing and evaluating information.
- Identifying and quantifying the attributes of shapes and objects and applying measurement strategies.
- Spatial visualisation and geometric reasoning.

The staff aims for students to:

- Create favourable attitudes, enthusiasm and confidence with mathematics.
- Develop an understanding of mathematical concepts, processes and strategies and the capacity to use these in solving problems.
- Develop an appropriate language for the effective communication of mathematical ideas and experiences.
- Develop an appreciation of digital technology to mathematics
- Achieve at a level that is appropriate to their ability.

CATHOLIC DIMENSION:

As followers of Christ and people made in the image and likeness of God, students must truly value who they are and feel empowered to develop and become the people God wishes them to be. The ability of young people to value themselves and their environment as they grow and mature is a true reflection of the value and love God holds for all people.

Relationships with the people, the places, events and the things of this world are an essential part of students' growing understanding of themselves. The realisation of one's potential, demands a commitment to learning about the people, events and things of our world. In them, we believe, God may be found.

Our faith is found in all that we teach and learn and God's hand is clearly evident in our past, our present and our future.

IMPLEMENTATION

Procedures

Each teacher at St. Joseph's school uses the NSW Syllabus for the Australian Curriculum Mathematics K-10 (2012) to implement this KLA. Emphasis is on:

- Conceptual sequence from Early Stage 1 through to Stage 3.
- Teaching the content of the syllabus.
- Use of Information and Communication Technology within the Mathematics.
- The provision of frequent opportunities to explore, discover, describe and record mathematical patterns and relationships.
- Collaborative problem solving activities using various strategies and opportunities.
- Programming for needs of class and students.
- Use of the K-10 Numeracy Continuum (DEC) supported by the learning framework in Numeracy within Count Me in Too

Personnel

- Class teachers at St. Joseph's will be responsible for the implementation of the NSW Syllabus for the Australian Curriculum Mathematics K-10 (2012), providing explicit teaching, learning and assessment experiences which develop positive values and attitudes towards the use and study of Mathematics.
- The Learning Support Teacher will support the classroom teacher so that opportunities for curriculum differentiation are implemented to ensure all children have access to the curriculum and that individual numeracy needs are being met. He/she will also assist with the development of special programs for students with disabilities, when required.
- The Learning Support Assistant, if available, will assist the class teacher within the classroom context, or on a one to one or small group basis following programs devised by the class teacher and/or LST.
- Parent and Community volunteers are encouraged, to assist classroom teachers during the Mathematics teaching session.

Time Allocation

Mathematics is taught in a continuous block of sixty minutes each day. The Mathematics lesson follows a Balanced Numeracy Approach. See Appendix B

Resources

- NSW Syllabus for the Australian Curriculum Mathematics K-10 (2012)Count Me in Too! Resources
- A range of concrete materials
- Board of Studies K-6 Mathematics Sample Units of Work
- Developing Early Numeracy Strategies 1 and 2
- NAPLAN Teaching Strategies
- ARC Website
- GO Maths teachers resource manual
- Thinks Tanks- Origo Maths Resources
- Maths Plus Teacher's Resource Books
- Extensive range of concrete maths resources

Assessment

Assessment of student achievement should incorporate measures of students' ability to work mathematically and their knowledge, understanding and skills related to: Number and Algebra, Measurement and Geometry, Statistics and Probability.

It is the teacher's duty to implement quality assessment practices and collect and record assessment data appropriate to teaching and learning in Mathematics. This may take a variety of forms and should be in keeping with the demands of the current A-E reporting system. Possible sources of information for assessment purposes may include: work samples, explanation and demonstration.

Teachers will use this data to monitor student progress, continue to differentiate the curriculum for children at both ends of the academic spectrum, and as the basis for reporting to parents. In addition the results of NAPLAN for years 3, 5 and 7 will be used annually to inform teaching.

Best Start will be used at for all Kindergarten children to provide teachers with data on student entry level. Sena 1 and 2 will be used when applicable to identify student level of achievement in Mathematics. PAT Maths test will be used in Years 2-6.

Budget

Each year funds are allocated from the budget to support the teaching of Mathematics.

EVALUATION

The success of implementation strategies will be regularly reviewed as an ongoing process. This will involve supervision of teacher programs, the evaluation of student performance in mathematics, analysis of NAPLAN results, and results of external mathematics competitions.

This policy will be evaluated every three years by staff, or sooner if the need arises and reviewed at the beginning of each school year.

To be reviewed: **2018**

APPENDIX

Scope & Sequence Documents- Appendix A
Structure of the Numeracy Block- Appendix B