



MOONEE PONDS WEST PRIMARY SCHOOL MATHEMATICS POLICY

BASIC BELIEFS:

- Mathematics is best learned in meaningful contexts.
- To be numerate involves mathematical skill and understanding.
- Activities related to Mathematics should arise from the student's needs and interests and contribute to their understanding of the world.
- The learning of Mathematics is developmental.
- Learning involves risk taking - to estimate, to guess, to 'have a go' without fear of being wrong.
- Teachers should provide approaches and activities that build on existing knowledge and challenge students.
- Students learn from working with and talking to others about their Mathematics.
- There are a variety of methods and strategies involved in solving mathematical problems (i.e. Problem Solving Strategies).
- Student's individual personal approaches are valued.
- Cambourne's Conditions of learning are appropriate to the teaching and learning of Mathematics (Appendix 1).
- On-going effective professional development for teachers is an essential component of the Mathematics Program.

AIMS:

- To promote enjoyment of Mathematics by providing students with experiences where they can achieve success.
- For students to take responsibility for and reflect upon their mathematical learning.
- To develop in students an understanding that mathematical skills, procedures and strategies are an integral part of everyday life in their world.
- To develop mathematical concepts in a variety of ways, catering for individual differences and learning styles. (Appendix 2)
- To develop the correct use of Mathematical terminology.
- To encourage long term participation, understanding and enjoyment of Mathematics.
- To ensure that all students are supported to achieve their full potential.
- That staff are competent and feel confident to deliver a mathematics program in line with best practice (Appendix 1).

GUIDELINES FOR ACTIONS:

- Student's learning should be activity-based. Activities presented should be meaningful, interesting and enjoyable. Program organisation should facilitate learning through problem solving and investigating.
- To provide students with opportunities to take responsibility for and to reflect on their mathematical learning.
- To draw on real life experiences for all mathematical learning. The rich mathematical content of everyday events should be the major context for the exploration of mathematical ideas and concepts at all levels.
- To model mathematical concepts in a variety of ways that cater for individual differences and learning styles, ensuring easy and equitable access to resources and equipment.
- To understand that students work in three distinct phases; concrete, representative and symbolic.
- To encourage students to talk and write freely about mathematical experiences integrating mathematical concepts in language.
- To have an inclusive curriculum to encourage all students to participate in, understand and enjoy Mathematics.
- To provide additional support where necessary.
- To provide opportunities and encouragement for staff to participate in on-going, rich professional development related to Mathematics.

EVALUATION:

The program will be reviewed annually to ensure it is in line with the current Education Department Curriculum.

Cambourne's Conditions of Natural Learning

Immersion

In a stimulating environment, for example with displays of:

- children's maths work
- number books
- height charts
- graphs
- newspaper articles
- calendars.

Discussions using mathematical language and concepts to highlight real purposes for using mathematics.

Incidental classroom management tasks e.g. collecting money, roll call (absences), silent reading materials, lunch orders.

Demonstration

Modelling:

- co-operative learning skills, how to work in a group
- questioning techniques
- positive attitudes to mathematics
- investigating techniques
- various ways of recording
- methods of computation
- selection of real-life investigations
- problem solving strategies

Engagement

The encouragement of children to become independent and self-motivated learners where they want to become engaged in learning.

Expectations

Teachers set expectations that will allow children to:

- enjoy mathematics
- succeed in exploring and solving problems
- complete their work to the best of their ability

Responsibilities

Children being given the responsibility to plan and organise individual or group investigations:

- what they will explore
- who they will work with
- how they will explore the problem
- how they will present their findings

Children sharing the responsibility in group situations, e.g. reporter, time keeper, encourager etc.

Children taking responsibility in deciding their own needs to join a clinic group (e.g. on subtraction), or to ask for help.

Approximation

Children being encouraged to have a go and take a risk.

Accepting and discussing children's attempts and strategies to problem solve.

Encouraging children to use strategies that make sense to them

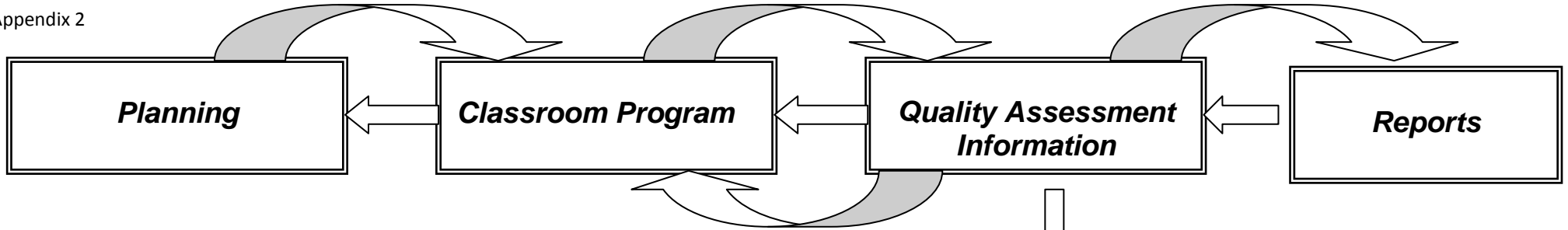
Allowing children time to share/explain their strategies and how they got their approximation/answers

Allowing children time to learn about problem solving strategies

Response

In sharing experiences, strategies, methods, problems, children gain feedback necessary to clarify and refine and extend their thinking and understanding.

Sharing is a positive experience where children's work is valued.



(AUS)VELS based



Focus statements



School centric



Sensible



Unit of work

(Evolving with the needs of student learning)

- Timetable
- Written resources
- Materials/equipment
- Teacher
- Confidence/attitude

- ⇒ Lesson Structure
 - Warm up
 - Intro 5-10 mins
 - Student Activity
 - Share/Reflection

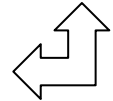
⇒ Open-ended questions



⇒ Units of work (mixed ability)

⇒  Mathematical Literacy

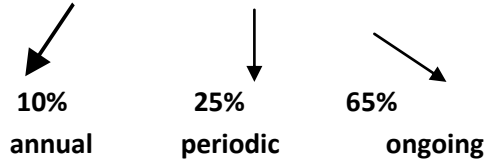
Intervention
Support/Extension



- collecting & recording
- evidence over time
- evidence in different contexts



balance of assessment



- e.g.
- NAPLAN
 - pre/post unit
 - anecdotal observations