Mathematics In Indigenous Contexts
Years K-2

St Michael's School Nowra
Diocese of Wollongong
St Michael’s School, Nowra

• A 3 stream school, with a Learning Centre for children with special needs.
• A population of 560 children and 43 staff.
• 34 children identified as Indigenous.
Terminology

• **Indigenous** - People of Aboriginal and Torres Strait Islander heritage.

• **Aboriginal** - People of Aboriginal heritage.

• **Elder** - Key people, highly regarded within their community.

• **Aboriginal English** - the dialect of Standard Australian English that is spoken in the Aboriginal Community. Also described as 'home language', there are many regional dialects.
Our Aboriginal Community

- Yuin Nation
- Students drawn from these significant communities:
  - Roseby Park, Orient Point (known as Jerringa people)
  - Wreck Bay, Jervis Bay
  - Nowra / Bomaderry
- Most families refer to themselves as Kooris
- Local community resources accessed by the school:
  - Elders
  - Aboriginal guest speakers
  - National Parks
  - Cultural Centre
  - City Council
  - Bomaderry Homes.
  - Cultural organizations (Laddie Timbery)
- Margaret Simoes - Indigenous Education Officer.
Why be involved?

- Increasing awareness.
- To develop appropriate mathematic learning activities.
- To develop links between schools, parents and community.
- To develop an understanding of the particular issues for Aboriginal students.
- To explore the potential of learning teams.
Our Expectations

• Improve mathematics teaching.
• Improve learning outcomes of the students.
• Familiarise ourselves with Count Me In Too strategies and framework.
• Provide opportunities to look closely at the learning needs of students.
• Establish an educational network within the local area.
Into Action

**Teachers**

Review on CMIT Framework

Identify four target children in each class.

Identify needs and strengths of the students.

Conduct SENA 1 and interview targeted children.

Coordination/communication with the team.

**Aboriginal Education Assistant/ Executive**

Contact relevant Aboriginal Community members.

Liaise with all team members.

Arrange home visits to follow up letter.

Invite parents to attend a meeting - demonstrating maths games/activities.

**Consultation**

Suzanne Ziems - Project Officer BOS

Margaret Simoes - Indigenous Education Officer

Shirley Brady - Education Officer

Ongoing consultation with relevant staff.
Implications of community input

Strategies

• Make ‘connections’ between mathematical ideas and home language.
• Authentic to all students, putting maths teaching into real and familiar situations.
• Student’s recording.
• Make links to real life.
• Giving students choice.
Reflecting With The Community.

- Aboriginal Culture and community members need to be recognised and valued.
- Mathematical concepts need to relate to their own lives ie. ‘purposeful.’
- Allow for small informal group work.
- Give a briefing outlining what will happen in a meeting or a lesson.
- Best learning occurs when community members can manipulate the world around them.
Changes To Classroom Practice and Learning Environment

• Begin each maths lesson, sharing language content.

• Provide access to a variety of materials and activities.

• Encourage and explicitly teach the children to record their work in a variety of ways.

• Use the interests of the children to engage them in the learning experiences.

• Focus on tasks that can be joint projects - ‘teamwork’

• Question class not individuals. Give thinking time.
Term 2  “Shelters In Our Environment”

Embedding the following specific activities into our integrated unit:

1. Graphing/tallying the shelters in the local community.

2. Inviting community members into the classroom, to speak to the class explaining the use of mathematics in construction of a traditional/modern shelter.

3. Planning and budgeting for a trip to Mogo Zoo for a group of three friends.
Mogo Zoo
Term 3 and Beyond.....

Term 3
- Setting the term outline.
- Focus on the use of mathematical language.
- Programming
- ‘What’s The Difference?’
- Reporting to our staff.
- Open classroom for wider school community.

Term 4
- Maths Task day with community members.
- Diocesan Expo presentation.

Plans for 2007
What Did We Observe?

• All students were developing positive, enthusiastic attitudes to maths.

• Aboriginal students were responding in a positive way to being ‘the experts’ in their area of interest.

• Students are more articulate and creative in their mathematical thinking and explanations.

• Self confidence developing.
Significant Learning

• Engagement with the community.
• Valuing the culture and heritage.
• Classroom Observation
• Discussion and reflection.
• Photos and video evidence
• Talk, talk, talk!
• Risk taking
The value of knowing....