

Mathematics in Indigenous Contexts K–6 website

The Board of Studies recently launched an interactive website that has been developed to support teachers of Aboriginal students in their implementation of the new *Mathematics K–6 Syllabus*.

The website is part of the *Mathematics in Indigenous Contexts K–6* project that aims to improve numeracy skills of Aboriginal students by investigating ways in which Aboriginal parents and community members can be involved in developing culturally and contextually appropriate teaching and learning units for the new *Mathematics K–6 Syllabus*.

The website focuses on the experiences and outcomes from Walhallow Public School (Tamworth District) and Crawford Public School (Mount Druitt District), two NSW schools that participated in the *Mathematics in Indigenous Contexts K–6* project throughout 2002.

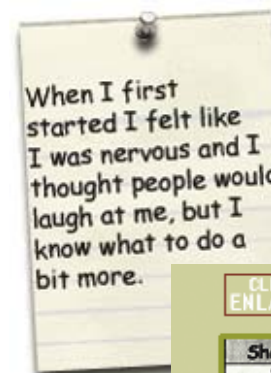
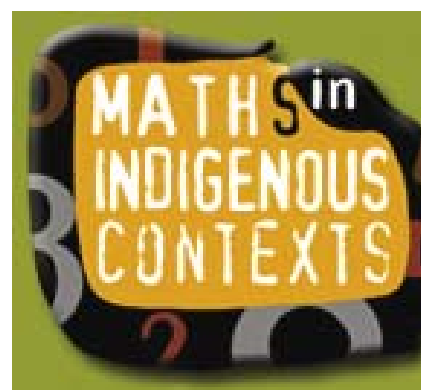
As well as providing insight into the processes used by the two schools in involving Aboriginal community members, the website contains an extensive range of materials associated with the project including:

- teaching units
- student assessment information and reflection
- work samples including photographs, video footage and audio grabs
- student and staff journals.

The objectives underpinning the development of the website are to:

- increase the awareness among teachers of the teaching and learning needs of Aboriginal students in their numeracy learning
- demonstrate the capacity of contextually developed school-based Mathematics and assessment practices to meet the learning needs of Aboriginal students
- develop units of work that reflect and demonstrate a range of teaching and learning, and assessment practices which are conducive to Aboriginal students being able to demonstrate their numeracy understanding
- develop clear links between schools and parents and community that support effective teaching and learning practices and encourage them to become active partners in school curriculum development and delivery.

Schools are encouraged to work with this material as a training and development exercise as it provides a process to guide a school community through the development of context-based curriculum. The *Maths in Indigenous Contexts* website address is www.learningcontexts-mathematics-k-6.nsw.edu.au



worksample of angles and artefacts

Three parents discuss issues about helping their children with homework



student explanation of the aboriginal

Implementing the new Mathematics K–6 Syllabus

Throughout this year the Office of the Board of Studies has released to primary schools support materials that are designed to assist teachers in the implementation of the new *Mathematics K–6 Syllabus*.

The *Sample Units of Work* support document was released in Term 2, 2003. Recent feedback from teachers has shown that many schools are incorporating the various learning experiences and assessment opportunities contained in the document into their teaching and learning programs.

For example, teachers at John Purchase Public School, a large primary school situated in Sydney's north-west, have incorporated the *Working Mathematically* activity called *Measuring Cartoon Characters* into their weekly measurement sessions. The activity is located on page 67 of the *Sample Units of Work*.

In this activity, students work in pairs using cubes as informal units to firstly estimate, then measure the length of the cartoon character by placing the cubes end-to-end without gaps or overlaps.

Teachers at the school said many students were pleased with their work and their achievements and that many of the outcomes in the measurement strand of the new syllabus were demonstrated by students through this activity.

In another activity teachers at the school used the *Working Mathematically* activity called *Computer Lines* (page 68 of *Sample Units of Work*). In this activity, students used computer software to draw a line and then used a simple graphic to measure the length of the line.

Similar to the *Measuring Cartoon Characters* activity, *Computer Lines* also allows students to use informal units to estimate and measure length.

At Lane Cove West Public School in Sydney, teachers have devised learning experiences based on the syllabus outcomes. Teachers have incorporated a popular addition activity called 'side totals' to demonstrate syllabus outcomes in the Stage 1 Number strand on page 47 of the syllabus.

In this activity, students worked in small groups and took turns to place a numeral card between 1 and 8 at points along each side of a cardboard square so that each side contained three numbers that add up to 12.

After the students found a solution they compared results with other groups. One student commented, "I liked it but you had to get the corner numbers correct otherwise it didn't work."

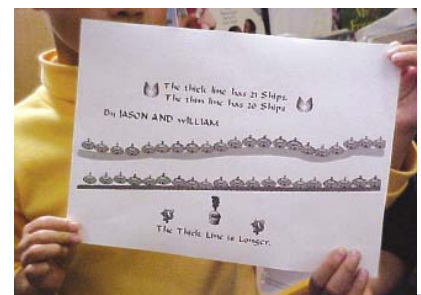
This activity is a popular and useful one for many primary students that helps them to develop a range of mental strategies for addition.

These activities are all examples of good practice in the teaching of the new *Mathematics K–6 Syllabus*. The Office of the Board of Studies acknowledges teachers Larelle Stevenson from Lane Cove West Public School and Heather Thomas from John Purchase Public School for their contributions.

The Office has received many positive comments and suggestions from teachers on the new syllabus. Feedback from teachers is highly valued and the Office is interested in hearing more great ideas on how schools will be

implementing the new *Mathematics K–6 Syllabus* and using the Support Materials. Primary school teachers are encouraged to send feedback, suggestions and examples of successful classroom activities with photos to:

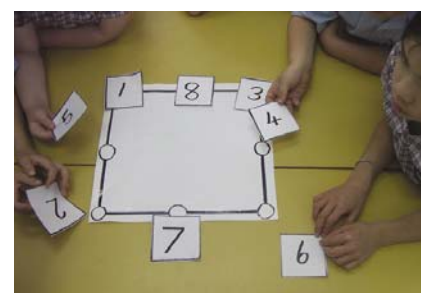
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Students at John Purchase Public School showing their 'Computer Lines' measurement activity.



Students in Stage 1 at John Purchase Public School using informal units to estimate and then measure the length of Cartoon Characters.



Students at Lane Cove West Public School play a game of 'side totals'.

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