

## Primary Curriculum Project Update

The Board of Studies is currently undertaking a project aimed at identifying key issues that impact on teachers' use of K-6 syllabuses. This will enable the Board to support primary teachers to develop programs that best achieve their teaching and learning goals. The project is being coordinated by a working party of principals from the Department of Education and Training, Association of Independent Schools and Catholic Education Commission chaired by John O'Brien, Director of Curriculum for the Office of the Board of Studies.

In Term 4, 2002, Board of Studies Liaison Officers visited more than 100 primary schools across the state to obtain a sample of teachers' views about the primary curriculum. Questionnaires were also sent to 40 primary schools. The Board has received responses from almost 400 teachers. Board of Studies Liaison Officers are continuing to visit schools during Term 1 this year to gather further information.

Peak education bodies have also presented ideas and recommendations to the working party. These groups include the Federation of Parents and Citizens Associations, the Professional Teachers' Council NSW, the Association of Special Education, the Catholic Education Commission, the Early Childhood Association, the NSW Teachers' Federation, the Federation of School Community Organisations and the NSW Primary Principals' Association.

With the assistance of Andy Goodyer, the Chief Research Officer at the Office of the Board of Studies, over 2000 comments from teachers have now been classified into five broad areas:

(i) use of existing syllabuses and support documents

- (ii) comments about outcomes and indicators
- (iii) comments about specific key learning areas
- (iv) comments about assessment, reporting and recording
- (v) future issues and recommendations.

At the end of Term 1, the working party will begin to analyse the information collected.

A further progress report will be published in the next edition of the Board Bulletin, which is due in schools in May.

For further information contact Margaret Malone, Inspector, Primary Education on (02) 9367 8199 or email [malone@boardofstudies.nsw.edu.au](mailto:malone@boardofstudies.nsw.edu.au)

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# K-6 Linkages

## NEW ABORIGINAL TECHNOLOGY UNIT

The Linkages page on the Board of Studies K-6 website is designed to assist teachers to develop an integrated approach to teaching and learning across the six key learning areas. It provides examples of teacher-devised units of work that highlight the potential for innovative teaching practices and which exemplify different approaches to developing integrated learning programs.

A Stage 3 unit, 'Aboriginal Technology', has recently been added to the website, completing the first set of integrated units with an Aboriginal perspective from Early Stage 1 to Stage 3.

The new Aboriginal Technology unit covers the areas of Bushfood, Natural Fibres, Shelter, Watercraft and Traditional Lifestyle and concludes with several examples provided from the exhibition of the contemporary use of technology at the Powerhouse Museum.

The learning sequences in the unit have been designed to inform students of the history, development, use and adaptation of technology by Aboriginal people, and provides opportunities for students to try to replicate the technology.

A wide range of materials illustrative of the use of technology by Aboriginal communities has been incorporated into the unit, including photographs from the Australian Museum's Dick collection of Aboriginal weapon-making from the early 1920s, as well as student work samples that help illustrate the content. Links to other websites are also provided throughout the unit to help teachers and students identify a wider range of source material.

The Aboriginal Technology unit demonstrates a more

holistic approach to learning. It can be used to add an Aboriginal perspective to an existing unit or it can be taught as a stand-alone unit.

The linkages website can be found at [www.bosnsw-k6.nsw.edu.au](http://www.bosnsw-k6.nsw.edu.au)

For further information contact Kevin Lowe, Chief Education Officer, Aboriginal Curriculum Unit on (02) 9367 8198 or email [lowe@boardofstudies.nsw.edu.au](mailto:lowe@boardofstudies.nsw.edu.au)



*Artefacts - twined bag, basket and clubs from the Aboriginal Technology unit courtesy of Walhallow PS*

# Assessment for Learning

## in a Standards-referenced Framework

### Building a standards framework for K–12

With the revision of Years 7–10 syllabuses currently in full swing, the Board is nearing the end of a process of developing a standards framework for the K–12 curriculum. New standards-based HSC syllabuses and support documents were introduced in 2000 and standards-based syllabuses have been introduced for K–6. New 7–10 English and K–10 Mathematics syllabuses are already in schools and the remaining new 7–10 syllabuses are due in schools this year.

The introduction of the full set of new Years 7–10 syllabuses by 2005 will provide for a continuum of standards-based teaching, learning, assessment and reporting for each stage of learning from Kindergarten through to Year 12. Teachers will be better equipped to identify, teach to, monitor and evaluate the learning needs of their students. Standards-based syllabuses and support documents provide better support for teachers in designing and implementing quality student assessment practices.

### How are standards described?

Standards are described through syllabus outcomes and content together with stage statements and descriptions of levels of achievement of outcomes for each stage of learning. Annotated samples of student work, as they become available, consolidate the description of standards typical of each stage.

### Assessment in a standards-referenced framework

Standards-based syllabuses strengthen the capacity of teachers to utilise both assessment *for* learning and assessment *of* learning strategies. Assessment *for* learning and assessment *of* learning strategies have been key aspects of best practice in schools for many years.

### What is assessment *for* learning?

Assessment *for* learning occurs as a regular part of normal classroom activities. It is an ongoing form of assessment that is used to inform, monitor and promote learning.

In assessment for learning, teachers monitor and respond to their students' learning progress. Using student responses to various activities, exercises and questions designed to assess groupings of outcomes, teachers are able to plan how to remedy misconceptions, support deeper understanding and help students acquire new knowledge, skills and understanding.

Assessment for learning helps increase the effectiveness of teaching strategies and improve learning processes, resulting in better learning outcomes for students.

### What is assessment *of* learning?

Assessment *of* learning enables teachers to report on the status of students' learning at various points in the teaching and learning program.

Assessment of learning involves teachers making professional

judgements of students' achievement based on evidence they have collected from both formal and informal measures of each student's performance over time on a number of assessment *for* learning activities. This evidence can then be used to inform the expert professional judgement of the teacher operating within a standards-referenced framework.

### Descriptions of Levels of Achievement

By the end of a stage of learning, it is recognised that students will have demonstrated the outcomes for the stage to different degrees. It is also likely that some students will be demonstrating outcomes from the next stage while others may still be working to achieve outcomes from the previous stage.

The Board is currently developing Descriptions of Levels of Achievement for stages from Early Stage 1 to Stage 5 in consultation with teachers. (*Refer to diagram on p 5*)

The levels of achievement describe the range of achievement that students can typically demonstrate at the completion of a stage of learning. They present in summary form a description of the extent to which the outcomes for a stage have been achieved.

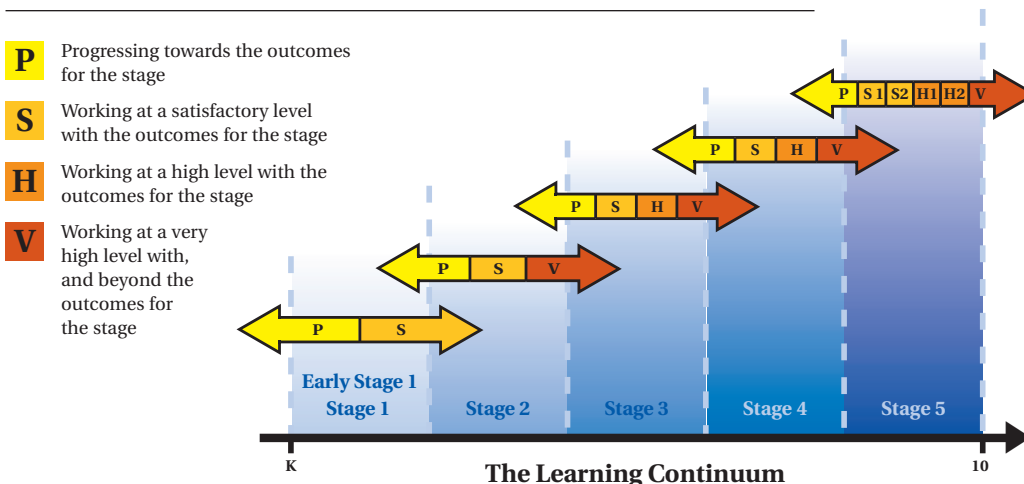
While the descriptions are designed to assist teachers to assess and report student learning outcomes at the end of the stage or the learning unit they can also be used to monitor, direct and promote progress during the unit. They provide a valuable backdrop for assessment and reporting of student achievement.

*continued p 4*

Assessment for Learning *continued from p 3*

## Descriptions of Levels of Achievement Consultation Model

The diagram below shows the number of levels of achievement proposed for each stage of learning from Early Stage 1 to Stage 5.



Further information about Assessment for Learning will appear in future articles in the *Board Bulletin*.

Note: In Stages 1 to 3, it is proposed that initially levels of achievement will only be developed in English and Mathematics.

Draft levels of achievement will be distributed for consultation with the revised 7–10 syllabuses. Consultation on Stage 3 levels of achievement for English and Mathematics will occur later this year.

Any comments on the consultation model above can be emailed to [syllabus@ozemail.com.au](mailto:syllabus@ozemail.com.au)

# Mathematics in Indigenous Contexts K-6

*Mathematics in Indigenous Contexts K-6* is part of an ongoing project aimed at improving the numeracy skills of Aboriginal students.

The current phase of the project began early last year and focuses on the development of culturally and contextually appropriate mathematics teaching units for Aboriginal students in primary school.

In 2002, Crawford Public School, a large school in western Sydney, and Walhallow Public School, a small rural school situated at Caroon, 100 km south of Tamworth, explored processes for working with Aboriginal parents and community members to develop teaching and learning units using the new *draft Mathematics K-6 Syllabus*.

The Stage 2 teachers at the schools were supported by experienced teacher mentors and university research mentors throughout the process of planning and developing the teaching and learning units.

The mentors assisted the schools in the understanding of issues related to numeracy learning among Aboriginal students and helped work through strategies to involve parents and community members in the development of the units of work.

A final sharing day in September enabled teachers, parents, mentors and community members to discuss the positive and challenging aspects of their projects, the specific contexts and needs of their schools and the different ways each school worked with its community. The models highlight how each school was able to develop appropriate processes to meet their particular needs and locations.

Crawford and Walhallow Schools completed the implementation of the units in Term 3, 2002. The Office of the Board of Studies is currently collating the materials associated with the project to develop an interactive website training and development package which can be used by schools to engage their own

community in the development of teaching units.

The website will include:

- units of work for Stage 2
- an outline of the process of curriculum development used in each school
- work samples in the form of video footage, digital photographs and audio grabs, class and students' work samples, and teacher, mentor and student journals illustrating sections of the process.

Further information on the project can be obtained from Kevin Lowe, Aboriginal Curriculum Unit on (02) 9367 8198 or by email to [lowe@boardofstudies.nsw.edu.au](mailto:lowe@boardofstudies.nsw.edu.au)



# Mathematics K–6

## SUPPORT DOCUMENT FOR NEW SYLLABUS

The new *Mathematics K–6 Syllabus* was distributed to primary schools during Term 4 last year. Primary schools have also received a Principal's Package and a Parents and Community Package, outlining key features of the new syllabus.

Early in Term 2, schools will receive a support document designed to help teachers in the implementation of the new syllabus.

The support document includes sample introductory units of work which show how outcomes, content, resources and teaching strategies can be brought together to effectively implement the new syllabus. The sample units of work cover a range of content in the syllabus for all stages.

Other important features of the support document include samples of student work and sample assessment tasks. These units of work were developed by teachers and trialed in a number of schools around the state.

Assessment tasks, along with annotated samples of student work, will also be provided to each primary teacher on a CD-ROM during Term 3. These tasks have also been developed by teachers and will show a range of students' achievements.

In the new *Mathematics K–6 Syllabus* the central 'Working Mathematically' content encompasses five interrelated processes, namely Questioning, Applying Strategies, Communicating, Reasoning and Reflecting.

In the support document these five processes are highlighted in the introductory units of work by a symbol which clearly identifies to teachers the activities that specifically target one or more of the processes.

The support document will also provide advice on:

- programming
- planning for schools
- meeting the needs of all learners
- developing additional units of work
- choosing assessment strategies
- using the sample units of work.

More information about the new *Mathematics K–6 Syllabus* can be found on the Board of Studies K–6 website at [www.bosnsw-k6.nsw.edu.au](http://www.bosnsw-k6.nsw.edu.au)

### SAMPLE UNITS OF WORK WILL INCLUDE:

- Whole Numbers
- Addition and Subtraction
- Multiplication and Division
- Fractions and Decimals
- Chance
- Patterns and Algebra
- Data
- Length
- Area
- Volume and Capacity
- Mass
- Time
- Three-dimensional Space
- Two-dimensional Space
- Position

