

# Mathematics Links

NSW Department of Education and Training

Curriculum K-12 Directorate

Volume 1, Number 9, November 2006

## Email Alert

### Welcome to *Mathematics Links* November 2006

*Mathematics Links* is an electronic update for mathematics faculty leaders and mathematics teachers informing on the latest additions to the *Curriculum Support* website, professional learning opportunities and links to relevant resources.

#### Curriculum Support updates

- **Newman's prompts- Finding out why students make mistakes**

The Australian educator Anne Newman (1977) suggested five significant prompts to help determine where errors may occur in students' attempts to solve written mathematics problems. To find out the questions she asked students, as they attempted problems, go to

<http://www.curriculumsupport.education.nsw.gov.au/secondary/mathematics/numeracy/newman/index.htm>.

- **Mathematics programming support K-6 website**

Are you looking for Stage 2 and Stage 3 material to support students at your school? This may be the resource you are looking for. The K-6 Mathematics programming support on the *Mathematics Programming support* website includes:

- making connections in Mathematics – a guideline to programming and an overview of available resources
- a yearly overview, term scope and sequence and weekly programming planner
- a continuum of learning in Mathematics for each strand and sub strand – links to key ideas, sample teaching activities, available BOS and DET resources, connections to other strands, learning objects, planned assessment, annotated work samples

Available at

<http://www.curriculumsupport.education.nsw.gov.au/timetoteach/cogs/mathsframe.htm>

These resources can be used to:

- plan for quality teaching in Mathematics
- engage in stage based discussion on how to best meet the needs of students
- discuss, as a school staff, the continuum of learning across stages for each sub strand
- trial the suggested assessment tasks
- engage in a process of moderation with colleagues using the work samples provided

Active links include: Fractions, Patterns and algebra, Area

[http://www.curriculumsupport.education.nsw.gov.au/primary/mathematics/k6/programming/program\\_support/prog\\_support/prog\\_support/ps\\_intro.html](http://www.curriculumsupport.education.nsw.gov.au/primary/mathematics/k6/programming/program_support/prog_support/prog_support/ps_intro.html)

#### Professional learning opportunities

## • **THE SCHOOL OF MATHEMATICS SCHOLARSHIPS FOR UNDERGRADUATE STUDIES IN MATHEMATICS AND STATISTICS**

The University of NSW offers numerous scholarships to help with studies in Mathematics and Statistics at UNSW. The School of Mathematics and Statistics offers scholarships worth \$1500-\$2000 per year for undergraduate studies. These include:

**Mathematics Scholarships**

**Mathematics Teachers Scholarships**

**Mathematics Rural Scholarships**

**Statistics Scholarships**

**Meteorology & Oceanography Scholarships**

**Girls Do The Maths Scholarships**

The University and the Faculty of Science also offer scholarships that can be used to study Mathematics and Statistics at the University of New South Wales. See:

<http://www.scholarships.unsw.edu.au> for more details.

### **The Girls Do The Maths Scholarships:**

Awarded to encourage female students to undertake full-time study at UNSW with a Mathematics major or study plan. The scholarship will be tenable for up to 3 years, subject to satisfactory progress and will have a value of \$2,000 per year.

### **Applications for Scholarships**

Apply online <http://www.scholarships.unsw.edu.au/about/ApplyOnline.html>

or download a form from

<http://www.scholarships.unsw.edu.au/about/ApplicationForms.html>

Applications were due on September 30, but late applications may be considered.

**More information is attached to this email. A copy of the attached document could be given to your career's adviser for further promotion at your school.**

• **Semester 1 2007 Curriculum K-12 Mathematics workshops** will be advertised in the December Maths Links email.

### **Free online mathematics resources**

• **An interesting article on *Computer-aided maths in New Zealand***

Computers are enhancing learning in mathematics. KATE TRINGHAM reports on a pilot project that is enthusing teachers and students alike. Excitement and understanding are among the results of a new form of technology in mathematics education that helps engage students in how algebra works and why it works that way.

<http://www.edgazette.govt.nz/articles.php?action=view&id=7252>

### **Murray's Maths Website**

• Marilyn Murray is an Intensive English Centre (IEC) teacher at Marsden IEC which is part of Marsden High School, in West Ryde, Sydney, who has been working on producing a website for mathematics teachers that provides links to relevant mathematics websites on the Internet. Her criteria for choosing the sites included it had to be fun, interactive, teach something and be relevant to the NSW Maths Syllabus.

The address is <http://www.members.optushome.com.au/murraymb/>

To start you off, look at some of the graphing programs on the maths links page. Go to Maths Links/Graphing Programs/Bathtime with Archimedes. Try some of the shape links also. These links allow students to spin the solids - check out "See-through solids". If you have any trouble, read the instructions in the left hand column next to the link.

You may also want to check out Marilyn's Wingeom page. The IEC page has some of the same links as the other Maths Links page, but Marilyn has selected the ones that involve less reading and are more visual. There are some maths language interactive sites on this page also.

Till next month!

*Carolyn McGinty*

Senior Curriculum Adviser Mathematics 7-12

Curriculum K-12 Directorate

Department of Education and Training

3a Smalls Road Ryde 2112

Ph- 9886 7593 Fax- 9886 7424