

Mathematics Links

NSW Department of Education and Training

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Email Alert

Welcome to *Mathematics Links* September 2007

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

- I mentioned a free software download called **GeoGebra** in the last email. I have placed links to the GeoGebra site on the Curriculum Support website in the Professional learning, How to ... section. The intention is to add more material here on how to use GeoGebra in the classroom. Bookmark this page on the website for future reference.
<http://www.curriculumsupport.education.nsw.gov.au/secondary/mathematics/prolearn/howto/index.htm>
- **Stage 4 Area** - a unit of work on outcomes MS4.1, WMS4.2 and WMS4.3. The focus of the unit of work is to outline a teaching sequence to cater for student learning needs in a mixed ability classroom. The curriculum focus is developing formulae for the area of squares, rectangles triangles and parallelograms. The unit incorporates the TLF learning object *Area of a triangle* available on the TaLE website. Available as a download in Word or PDF at
http://www.curriculumsupport.education.nsw.gov.au/secondary/mathematics/years7_10/teaching/list.htm
A Flash video on **How to use Microsoft Word to teach area** is also included on the page if you scroll down.
- **SNAP Links for 2007** - are now available from the EMSAD website for all KLAs. These documents detail explicit numeracy teaching strategies to enhance student numeracy learning in the classroom. These resources are now web based so there is no use waiting for the hard copies to be sent to schools. Access these teaching ideas **TODAY** and show other mathematics teachers. Are you a member of the school numeracy team? Take the Linking SNAP to mathematics documents to your next meeting. The activities could even make an interesting parent workshop for Year 6 to Year 7 orientation meetings. Available from the DET Intranet at
https://detwww.det.nsw.edu.au/directorates/schoimpro/EMD/snap/pubs/Curriculum%20Links/SNAP07_CL_HTML/SNAP07_index.htm

Professional learning opportunities

- There are numerous **Mathematics Head Teacher workshops** offered this

semester in term 4. The workshops are for head teachers of mathematics and mathematics teachers aspiring to be head teachers and aims to support leadership development and curriculum management.

Sessions at these two day workshops include:

- leadership and the role of the head teacher mathematics
- managing the faculty
- interpersonal skills and mathematics team building
- promoting effective mathematics teaching and learning
- catering for individual differences in the mathematics classroom
- using data to improve students' learning outcomes in mathematics
- planning for action

For more information about where these workshops will be held go to

http://www.curriculumsupport.education.nsw.gov.au/secondary/mathematics/prolearn/pl_activity.htm

For further details about the workshop go to

http://www.curriculumsupport.education.nsw.gov.au/secondary/mathematics/prolearn/ht_workshop.htm

To register for the workshop go to

http://www.curriculumsupport.education.nsw.gov.au/prolearn07/semester2/s_mathematics.htm

Free online mathematics resources

- **Mathematical moments** is a page on the American Mathematical Society's website that promotes appreciation and understanding of the role mathematics plays in science, nature, technology and human culture. They are presented as a series of pdf documents some with podcasts embedded. Very clever format and particularly useful for the classroom as a stimulus for teaching particular topics. The one page pdf documents would make excellent classroom posters to show how mathematics connects to the real world. Have a look at *Making designs a reality*. This site is a must see. View at <http://www.ams.org/mathmoments>

- **Teacher's domain** provides multimedia resources for the classroom and professional development. This is the most teacher-friendly, easy to navigate, free site I have come across yet. All resources are available for free once you have registered. During registration you can view all the schools from NSW who are registered even though this is an American site. The resources available, like the Mathematical Moments site, provide connections for students explaining why the mathematics we teach is important and relevant today. Small download QuickTime video files, background reading, discussion questions and professional learning are available to download and create your own lesson. Particularly useful for interactive whiteboards. View the site at <http://www.teachersdomain.org/tdhome.html>

Once you have registered have a look at the Geodesic dome at

<http://www.teachersdomain.org/resources/phy03/sci/phys/mfw/bbgeodesic/index.html>

It really is brilliant - I wish I was back in the classroom!!!!

- **The Future's Channel website** - connecting learning to the real world. Real maths, real science, real careers. Algebra in the real world and Hands on Maths have lesson plans, video clips and worksheets that link maths to the real world. Have a look at Expressions and equations - The Drop. Another great website to engage students and connect the maths we teach to the world we live in. View the site at

<http://www.thefutureschannel.com/index.php>

View The Drop lesson at

http://www.thefutureschannel.com/algebra/expressions_equations.php

View Hands on maths - Polygon percent patterns at
http://www.thefutureschannel.com/hands-on_math/polygon_percent_patterns.php

New scheme teachers

- Welcome to your first edition of the Maths Links email for the 17 early career teachers I met at Rooty Hill in August. I hope you have been using some of the material from the workshop. Remember, the Curriculum Support website at <http://www.curriculumsupport.education.nsw.gov.au/secondary/mathematics/index.htm> is available for support as is the PLLD website at <https://www.det.nsw.edu.au/proflearn/areas/nt/index.htm>

Until next month!

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