Technology in the Mathematics Classroom

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To become effective users of technology teachers need to make informed decisions about how and why to integrate different types of technology into their classroom practice – the ideal arrangement and use will support students' learning of mathematics.

Factors influencing technology use

- Previous skill/experience in working with technology
- General pedagogical beliefs
- Access to hardware, software, and tech support
- Students (perceived abilities, motivation, behaviour

Anim8or: a freeware OpenGL based 3D modeling and animation program by R. Steven Glanville, a software engineer at NVidia. Currently at version 0.97, it is a very capable program with many features and tools. Its small size, ease of use and easy-to-follow tutorials make it a gateway into the world of 3D graphics for many computer users who normally would never get a chance to try their hand at modelling and animation.

KompoZer: Kompozer is a software program that is used to create webpages from scratch. It can develop them from a basic shell into a fully functioning webpage, using titles, graphics, as well as links to other pages. This can be useful in the math classroom to organize not only teachers work but student work as well. KompoZer's WYSIWYG editing capabilities are one of the main attractions of the software.

SMARTboards:
These boards are becoming increasingly common in classrooms and can be used as a valuable tool in the classroom. According to SMART, using their boards increases student motivation and engagement, enhances assessment, improves learning outcomes, prepares students for careers in a knowledge-based marketplace, and keeps students in school. SMART also offers training, some of which is free and online. They are easy to use and incorporate visual and touch aspects into teaching, which aids in reaching more students. In addition, they have a variety of functions such as saving screen shots, recording a video of your work with a microphone option, and the list goes on. SMART boards can thus be a valuable tool if used appropriately.

Resources:

- http://education.ti.com/educationportal/sites/US/homePage/index.html (the official Texas Instruments homepage – product info as well as classroom activities)
- http://www.anim8or.com/
- http://kompozer.net/
- http://www.education.smarttech.com/ste/en-us (SMARTboard website)
- http://library.thinkquest.org/C006354/index.html (Quickie Math - helps with Geometry)
- http://woodgears.ca/eyeball (great for visualization)
- http://crayonphysics.com
- http://www.geogebra.org
- http://www.ed.gov.nl.ca/edu (provincial curriculum)
- http://standards.nctm.org/document/index.htm (Lesson plans and interactive activities)
- http://www.internet4classrooms.com/on-line_excel.htm (Excel tutorials for classroom use in math and science)