



Did you know?

Research supports professional development that

- Deepens teachers' knowledge of content and how to teach it to students.
- Helps teachers understand how students learn specific content.
- Provides opportunities for hands-on learning.
- Enables teachers to acquire new knowledge, apply it to practice, and reflect on the results with colleagues.
- Is part of a school reform effort that links curriculum, assessment, and standards to professional learning.
- Is collaborative and collegial.
- Is intensive and sustained over time.

From Educational Leadership, Feb. 2009

April is Mathematics Awareness Month

The American Mathematical Society, the American Statistical Association, the Mathematical Association of America, and the Society for Industrial and Applied Mathematics announce that the theme for Mathematics Awareness Month, April 2009, is **Mathematics and Climate**.

One of the most important challenges of our time is modeling global climate. Some of the fundamental questions researchers are currently addressing are:

- How long will the summer Arctic sea ice pack survive?
- Are hurricanes and other severe weather events getting stronger?
- How much will sea level rise as ice sheets melt?
- How do human activities affect climate change?
- How is global climate monitored?

This is a great opportunity to connect math and science.

Free posters advertising the theme are available to download or order at <http://www.mathaware.org/mam/09/theme.poster.html>. There are also activities posted on the website.



Teaching Tips

Did you know that teaching students hand gestures to accompany math strategies can greatly improve retention of what they learned? At least two different researchers have written about this topic recently.

"This study highlights the importance of motor learning even in nonmotor tasks, and suggests that we may

be able to lay the foundation for new knowledge just by telling learners how to move their hands," writes lead author and psychologist Susan Goldin-Meadow in the article "Gesturing Gives Children New Ideas About Math".

Mathematics; Hand Movements Help Create New Ideas. *ScienceDaily*. Retrieved March 2, 2009, from <http://www.sciencedaily.com/>

[releases/2009/02/090224133204.htm](http://www.mathaware.org/releases/2009/02/090224133204.htm)

Hand Gestures Dramatically Improve Learning. Retrieved March 2, 2009, from <http://www.sciencedaily.com/>

[releases/2007/07/070725105957.htm](http://www.mathaware.org/releases/2007/07/070725105957.htm)

Susan Goldin-Meadow, Susan Wagner Cook, and Zachary A. Mitchell. **Gesturing Gives Children New Ideas About Math.** *Psychological Science*, 2009; DOI: [10.1111/j.1467-9280.2009.02297.x](https://doi.org/10.1111/j.1467-9280.2009.02297.x)



The NCTM website has always included a wealth of resources. Recently NCTM has updated the Illuminations portion of the website to include the following:

- 103 online activities that help to make math come alive in the classroom or at home
- 534 lessons for preK-12 math educators
- NCTM's *Principles and Standards for School Mathematics*
- Hundred's of exemplary online resources, as identified by an editorial panel

The online Standards include electronic examples of lessons and activities. There are awesome interactive that would be perfect for using with interactive white boards.

UAH Summer Institute

- June 15-26
- Discovery Middle School (Grades K-12)
- Cedar Ridge Middle School (Grades K-5)

Websites

<http://www.transum.org/software/>

This website has some neat ideas that I haven't seen offered for free before!

- [Starter of the Day](#)
Warmups arranged by [date](#), [topic](#), or [title](#).
- [Shine + Write](#)
Math teaching resources for projecting onto a white board

(interactive or not) and writing the answers.

- [Fun Maths](#) Activities and games.
- [Videos from YouTube](#)
- [Random Student Generator](#)

Math PowerPoints Online

Houston City Schools
<http://www.hcbe.net/itc/powerpoints/math.html>

Jefferson County Schools
<http://jc-schools.net/PPTs-math.html#6-12math>

<http://math.pppst.com/index.html>

Teaching Math with a TWIST



www.youcandothedube.com

In most instances, we all learn best by doing and often enjoy learning more when we engage our minds and senses. Holding the Rubik's Cube, twisting and turning the parts, can help children of all ages grasp important math concepts includ-

ing area, perimeter, volume, angles, algorithms and enumeration, among many other geometry and algebraic topics. Some teachers are even using the Rubik's Cube to teach life lessons and 21st Century Skills such as focus, following directions, memori-

zation, sequencing, problem solving, critical thinking, and perseverance.

Check out <http://www.youcandothedube.com/math-twist/> for lesson plans aligned to national math standards.