

Online Resources for Math Instructors

By Dave Williams, Beaumont Adult School

If you have ever looked for math resources on the Web, you undoubtedly discovered that there is a tremendous amount of information out there, so much that many teachers might find it overwhelming to try to sort through it to find resources that are appropriate for their individual learners and that will work with the resources available to their classrooms. If you search for "math" at www.otan.us you will find 68 Web sites to try out!

To help teachers use and manage online math resources, I have worked with OTAN to develop a new workshop that will be offered starting this spring, *Online Resources for Math Instructors*. The Web sites demonstrated in this workshop start with basic math and continue with sites related to algebra, geometry and special areas such as CAHSEE prep and applied math for vocational subjects.

Not everyone has the luxury of unlimited access to a computer lab for instruction. Many adult education classrooms still have limited access to technology for instructional purposes. However, that does not mean that you are limited in utilizing online resources to provide supplemental instruction to your students. How about a Web site that can provide randomly generated practice problems

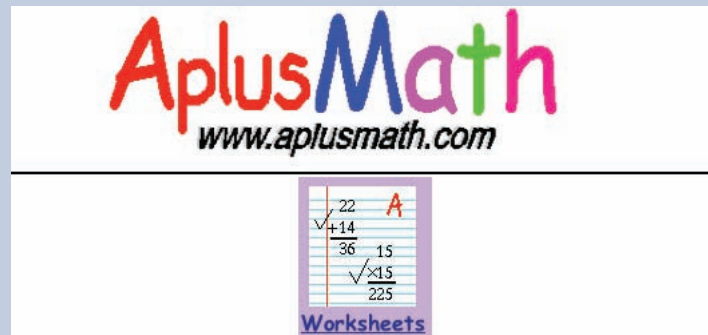
with fractions,

at varying degrees of difficulty, not only as an interactive online practice sheet, but also as printable worksheets that can be given to students? You can find these at www.aplusmath.com by clicking on the Worksheets icon and indicating what kind of worksheet you want to create. This is a useful resource whether you have computers in your classroom or not. Worksheets with answer keys are available for a variety of skills from counting money through basic algebra.

If you are teaching GED or CAHSEE Prep, and your students have computer and Internet access, you might try a site like Math for Morons Like Us, library.thinkquest.org/20991/home.html. This site provides instruction as well as quizzes, starting with pre-algebra and going through calculus. This site is not for low readers, but it has an entertaining conversational style that might appeal to younger high school diploma students.

Another useful site is the National Library of Virtual Manipulatives, nlvm.usu.edu/en/nav/vlibrary.html. This site provides manipulative activities for many skills including algebra, geometry, and probability. Learners actually interact with the site to solve problems or create products such as a chart or graph. In this example, the learner creates a visual representation of an algebraic equation.

The OTAN workshop on online math resources provides participants with a tool for evaluating math Web sites for students, as well as offering appropriate sites for students from ABE basic mathematics review to ASE algebra and CAHSEE preparation. For more information, check out training information on the OTAN Web site, or contact OTAN to see when this workshop will be offered near you.



www.aplusmath.com

The screenshot shows the homepage of 'Math for Morons Like Us'. At the top, it says 'Math for Morons Like Us' with a cartoon character. Below that, it says 'Please take a moment to read the Introduction'. There are two columns of links: 'Learn' (Pre-Algebra, Algebra, Geometry, Algebra II, Pre-Calc/Calculus) and 'Interact' (Message Board, Calculus Board, Formula Database, Quizzes, Math Links, Educators, Feedback, Credits, Site Map). At the bottom, it says 'Math for Morons Like Us - Home Page /20991/home.html © 1998 ThinkQuest Team 20991'.

Math for Morons Like Us
library.thinkquest.org/20991/home.html

The screenshot shows an interactive interface for solving the equation $4x + 3 = x + 6$. It features a balance beam with blocks on both sides. Above the beam, there are two boxes labeled '1' and 'X'. Below the beam, there are buttons for 'Continue', 'Clear', 'Create Problem', and 'New Problem'. A trash can icon is also visible.

National Library of Virtual Manipulatives
nlvm.usu.edu/en/nav/vlibrary.htm

List of Math Resources Links

Here are the math Web sites for student learning and practice that are presented in OTAN's Using Web Sites to Teach Math workshop. This list is a good place to start if you are looking for math resources for your students. You can find this online at www.otan.us under training.

More links are available by going to www.otan.us and choosing *Teaching Tools and Resources* | *By Program* | *ABE/ASE/GED* | *Sites to Use with Students* | *Math*. There are 68 links there, all reviewed and catalogued by OTAN staff.

- <http://www.khake.com/page47.html>
Math Resources - Tutorials, Formulas, Calculators, Directories
- http://nlvm.usu.edu/en/nav/category_g_4_t_1.html
National Library of Virtual Manipulatives
- <http://www.aplusmath.com>
A+Math: Worksheet generator, basic math
- <http://library.thinkquest.org/20991/home.html>
Math for Morons Like Us: Pre-Algebra tutorials
- <http://mathforum.org/library>
Math Forum @ Drexel: Listing of math resources
- http://www.wtamu.edu/academic/anns/mps/math/mathlab/beg_algebra
West Texas A&M Beg. Algebra
- <http://nlvm.usu.edu/en/nav/vlibrary.html>
National Library of Virtual Manipulatives Index
- <http://www.mathguide.com>
Math Guide: Resource center for teachers and students
- <https://www.algebrahelp.com>
Algebra Help: A collection of lessons, calculators, and worksheets created to assist students and teachers of algebra
- http://www.hawaii.edu/suremath/intro_algebra.html
Sure Math – Univ. of Hawaii, approach to solving word problems
- <http://highschoolace.com/ace/math.cfm>
High School Ace: Directory of high school level math resources, including geometry and algebra
- <http://www.math.com/homeworkhelp/Geometry.html>
Math.Com: Tutorial and exercise site for basic geometry
- <http://www.4tests.com/exams/examdetail.asp?eid=38>
GED practice test site
- <http://www.cde.ca.gov/ta/tg/hs/mathrtq05.asp>
CDE Web site for released CAHSEE math questions
- <http://score.kings.k12.ca.us/welcome.html>
California Mathematics Content Standards