

## WEB SCAN



*Reviewed by  
David J. Rosen*

*Newsome Associates*

## Numeracy and Math Websites

This Web Scan column has benefited from the numeracy and mathematics expertise of adult education teachers and teacher educators Connie Rivera and Brooke Iastas. Many thanks to them for their help.



*How Big Is the World's Largest Deliverable Pizza? (Area of Rectangles)*

### 1. Robert Kaplinsky's Search Engine

**<http://robertkaplinsky.com/prbl-search-engine/>**

If you are looking for a problem-based, real-life numeracy lesson for your students, Connie Rivera suggests this free search engine to look through great math and numeracy websites such as the Mathematics Assessment Project's MAP Mathshell, Wouldyourathermath.com, 3-Acts Lessons, Mathalicious.com, and many others. Here's a sample problem from the website: "How much is One Third of a Cup of Butter?" When I selected it, I was taken to a numeracy lesson plan, in which students look at a butter label, and cut a 4 oz stick of butter together. The lesson plan includes nine Common Core standards addressed by the lesson, such as "CCSS 3.NF.3b Recognize and generate simple equivalent fractions, e.g.,  $1/2 = 2/4$ ,  $4/6 = 2/3$ . Explain why the fractions are equivalent, e.g., by using a visual fraction model."

## 2. Open Middle, Challenging Math Problems Worth Solving

<http://www.openmiddle.com/>

Connie says this website is one of her top recommendations. She says, “These problems look basic and don’t use a lot of words, but they make you think deeply about what you are doing. A few of these can replace a whole ‘worksheet.’ They are also searchable by a Common Core standard number.” According to the website’s description open middle problems have a “closed beginning” meaning that they all start with the same initial problem, a “closed end” meaning that they all end with the same answer, and an “open middle” meaning that there are multiple ways to approach and ultimately solve the problem. These open middle problems “require a higher depth of knowledge than most problems that assess procedural and conceptual understanding. They support the Common Core State Standards and provide students with opportunities for discussing their thinking.

## 3. Math Solutions

<http://mathsolutions.com/free-resources/>

Connie recommends this Marilyn Burns website and also for teachers’ professional growth, Burns’ blog, Connie says, “She writes so clearly and makes me see, sentence by sentence, how to be a better teacher.”



## 4. You Cubed at Stanford University

<https://www.youcubed.org>

Connie says that at *you cubed* you can read recent research about growth mindset and the value of mistakes, visual learning, and the connection between math anxiety and the way we may be teaching math facts. You can also watch video examples and search for tasks to use with students.” Connie adds, “Jo Boaler rocks!”

## 5. Desmos

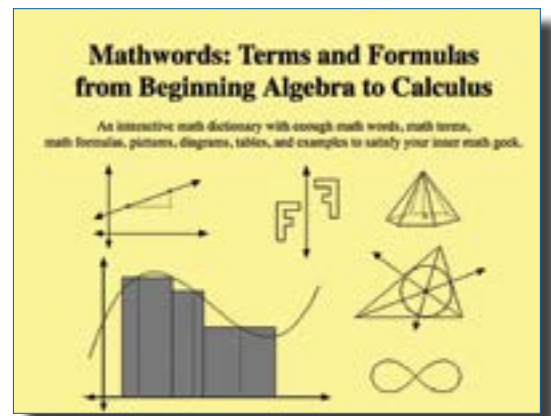
<https://www.desmos.com/>

Brooke Iestas thinks this free math web site is a great way to explore graphs and how small transformations can have a great impact on the way a graph looks. There are also math activities, so if you need some examples for how to incorporate a lesson, or perhaps increase your own personal math knowledge, Brooke says this site is easy to navigate with lots of information.

## 6. Mathwords

<http://www.mathwords.com>

Students often get confused by math vocabulary. Brooke says, “This is an interactive math dictionary with enough math words, terms, formulas, pictures, diagrams, tables, and examples to help learners begin to speak mathenesel!”



## 7. GCF Learn Free

<http://www.gcflearnfree.org/topics/math/>

I have recommended GCF Learn Free before in this column, but with a reminder from Brooke, this time I call your attention to its numeracy and math topics such as addition, subtraction, multiplication, division, fractions, decimals, and algebra. Brooke mentions that it also provides tutorials and math interactives.



## 8. National Library of Virtual Manipulatives

<http://nlvm.usu.edu/en/nav/vlibrary.html>

Brooke suggests this website “to help develop a conceptual understanding of all kinds of mathematical concepts. The Algebra has several wonderful manipulatives to help learners with factoring by giving them a visual, and helping them to manipulate it to create understanding.” Although not free, its \$29.95 price tag for a Windows or Mac computer may fit many teachers’ budgets.

## 9. Absurd Math

<http://www.learningwave.com/abmath/>

Brooke also recommends *Absurd Math*, an interactive mathematical problem solving game series. She says, “It is a great way to engage the learner and help develop deeper understanding of mathematical concepts.”

Comment from a Web Scan Reader: Dorothea Steinke, an adult numeracy/mathematics teacher in Lafayette, CO wrote me about a course that was included in the futurelearn.com website that I had featured in the Summer, 2016 Web Scan column. She cautioned that U.S. students who try the Numeracy Skills for Employability and the Workplace course, <https://www.futurelearn.com/courses/numeracy-skills> could run into difficulties because “Europe uses the point, where we use commas, and vice versa. So 23,247 in England means 23.247 in the United States.” She added that “the pencil-and-paper processes for multiplication and division may be different from those used in the United States.”

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