Learn to Use

Eventmath –

A New Wiki for
Sharing Math Lesson
Plans Based on
Current Events!



FYMSiC

First-Year Math & Stats in Canada July 27, 2022

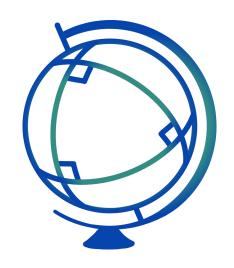


Greg Stanton, Higher Math Help
Brendan W. Sullivan, Emmanuel College (Boston)

Outline

- 1. Why Is Teaching Numeracy Challenging?
- 2. What Resources Address These Challenges?
- 3. What Value Does #Eventmath Add?
- 4. What Value Can You Add?





Why Is Teaching Numeracy Challenging?

Dynamic misinformation

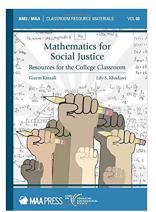
Content Logistics Static books and websites **→** No existing wiki infrastructure Inaccessible resources **\$\$\$\$\$** Missing detailed, flexible plans ←→ Time burden Lack of feedback on lessons Technological hurdles

←→ Shifting media literacy landscape

What Resources Address These Challenges?

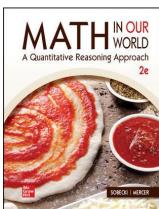
Books

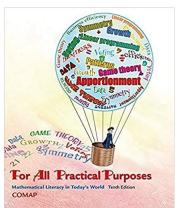
- **Expensive materials**
- **Publishing forces choices** about scope and depth
- Not easy to adapt



Common Sense Mathematics







What Resources Address These Challenges?

Websites

- Not updated often
- No feedback mechanism
- Hard to find
- Not very many



Teaching Quantitative Reasoning with the News

Compiled by Stuart Boersma, Central Washington University

Based on material written by Bernard L. Madison, Stuart Boersma, Caren L. Diefenderfer, and Shannon W. Dingman.



What is Teaching Quantitative Reasoning with the News?

This teaching method uses newspaper articles as content for the critical analysis of quantitative information. Being current and relevant, newspaper articles provide students with an easy answer to the question "When will I ever use this?" Quantitative comparisons, graphical analyses, and elementary modeling can al be approached and supported with case studies comprised of media articles.



https://serc.carleton.edu/sp/library/ teaching_news/index.html

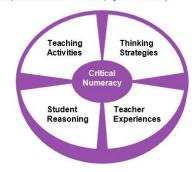
Developing Critical Numeracy Across the Curriculum

Numeracy in the News

This website aims to help teachers develop teaching and learning strategies to build students' critical numeracy-their ability to think discerningly about the way mathematical concepts are used in everyday contexts such as the news.



It can be used by both mathematics teachers and teachers across the curriculum who wish to bring a *critical numeracy lens* into their exploration of topics in their subject areas. We include a range of exemplars and tips for constructing activities as well as a deeper exploration of the issues of developing critical numeracy.



https://www.tas-education.org/numeracy/





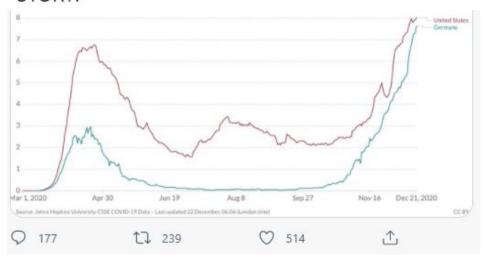


- 1. What claim is this tweet making?
- 2. How does it use data?
- 3. Is that claim supported?



Explaining why this actually is a graph of Germany being a success story (relative to the US) would be a great calc test essay question.

Remember: Germany is supposed to be a SUCCESS STORY.



https://twitter.com/Neoavatara/status/1341581271991013376 https://twitter.com/JSEllenberg/status/1341786203738304514

Example Lesson Plan

- 1. What claim is this article making?
- 2. How does it use data?
- Is that claim supported?

Proportions and voting power under the Electoral College

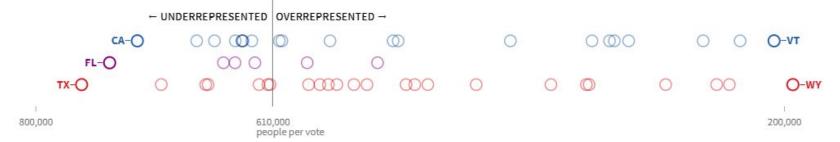
William Petrocelli, Contributor Author, Attorney, and Bookseller



Voters In Wyoming Have 3.6 Times The Voting Power That I Have. It's Time To End The Electoral College.

11/10/2016 04:52 pm ET | Updated Nov 11, 2017

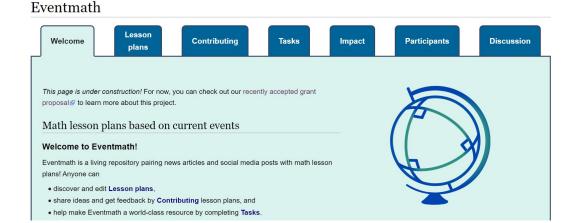
https://www.huffpost.com/entry/its-time-to-end-the-electoral-college b 12891764



Wiki infrastructure

Site design

Made for educators

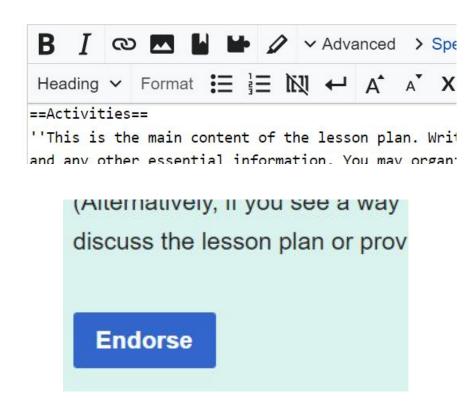


Example: Calculus and COVID-19

Search lesson plans

Wiki infrastructure

- Living resource
 - All pages editable
 - Keep content current
- Open-access
 - Archived sources
 - Feedback mechanisms



Site design

- Friendly navigation
 - Tabs
 - Search
 - Directory
- Optimized for search



Made for educators

Easy to find materials

- By math type
- By event type
- By teaching vitals

Easy to contribute

Preloaded instructions

Proportions and voting power under the Electoral College

Create lesson plan

It's time to start an Eventmath lesson plan!

If you reached this page after clicking "Create lesson plan" on Eventmath's Contributing tab, here's what you'll do next.

How to publish

- 1. Read the brief CONTRIBUTOR INSTRUCTIONS in the prefilled editor below, and then type in the lesson plan!
- 2. Preview your changes at any time, by clicking the "Preview" button at the bottom.
- 3. Publish by clicking "Publish page" at the bottom. It's okay to publish a lesson plan that's not yet complete.

What Value Can You Add?

Value already added by...

- Graphic designer
- Proposal endorsers
- Wikimedia Foundation
- Form respondents

And we will add a lesson plan page, together, right now!









I ordered a 9-inch Pizza.

After a while, the waiter brought two 5-inch pizzas and said, the 9-inch pizza was not available and he was giving me two 5-inches Pizzas instead, and that I am getting 1 inch more for free!

I requested the waiter to call the owner.

1/3

11:38 PM · Jun 29, 2022 · Twitter for Android

41.7K Retweets 9,247 Quote Tweets 197.5K Likes

Lesson plan idea

Main activity: Students create a "practical guide" that they can use to compare two X-inch pizzas with one Y-inch pizza.

In small groups, students...

- predict rest of story,
- calculate and compare,
- 3. explore and share findings.



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Source: https://twitter.com/cretiredroy/status/1542351841866153984

Lesson plan title

???

Example 1

- Bad: "Election math"
- Good: "Proportions and voting power under the Electoral College"

Example 2

- Bad: "Integration in epidemiology"
- Good: "Comparing areas under COVID-19 curves"



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What Value Can You Add?

Attend a workshop!

1. Live help

- a. Work with a partner
- b. List of sources

2. Community-building

- a. Create a user page
- b. Meet QR/QL educators
- c. Share your result online

3. Feedback

- a. Discuss lesson plan ideas
- b. We learn from you, too!

https://en.wikiversity.org/wiki/Eventmath/Meetups/Summer_2022_workshops

What Value Can You Add?



Register for Eventmath Workshop

- Wednesday, August 17,
 7:00 p.m. 8:30 p.m EDT
- Thursday, August 18,
 2:30 p.m. 4:00 p.m. EDT
- Friday, August 19, 10:30 a.m. – noon EDT

https://en.wikiversity.org/wiki/Eventmath/Meetups/Summer_2022_workshops

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Greg

- Email: <u>greg@highermathhelp.com</u>
- Twitter: <u>@HigherMathNotes</u>

Links

- Wikiversity: <u>Eventmath Portal</u>
- Wikimedia: <u>Project Grant Proposal</u>





Thank you! 🙂