

Online Learning Resources for Math

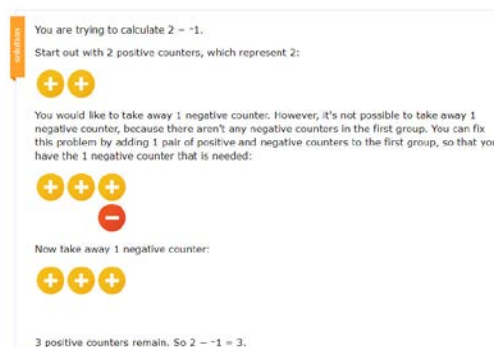
Local Resources:

- <https://sd52wap.wixsite.com/abed/math>
- Video tutorials for front-end calculations and more to come
- Link to Math library

Online Courses and Practice Platforms:

IXL Math (K- 12)

- <https://ca.ixl.com/resources/at-home-learning>
- For practicing concepts already taught
- **Subscription based. They are extending free access to all new school district licences until the end of June 2020. Our district is in the process of setting up. More info to follow.**
- The connections to the BC curriculum can be found at the link below:
<https://ca.ixl.com/standards/british-columbia/math>
- Teachers can view student progress and assign activities
- Provides examples with some text-based instruction good for older students and parents. Note that some explanations in some areas may not follow recommended strategies such using front end calculation.
- Recommended for Grades 4 - 12 (younger students with parent support). Primary students may struggle to use independently and may not be as engaged).
- Teachers can view student progress and assign activities



SplashMath (K- 5)

- <https://www.splashlearn.com/>
- **Subscription based - Offering free teacher accounts due to COVID19, working on getting district licence, contact Tannis Calder if you would like a class account.**
- Engaging cartoony practice activities – accessible to primary students
- Teachers can assign activities and view student progress



Desmos Classroom Activities (6- 12)

- <https://teacher.desmos.com>
- Interactive graphing activities

I Know It (K- 5)

- <https://www.iknowit.com/>
- Math practice – similar to IXL but geared for younger audiences. Less topics than IXL but better illustrated.
- Subscription based - Offering free teacher accounts due to COVID19
- Note that some explanations may not follow recommended strategies
- Primary students may struggle to use independently
- Teachers can view student progress and assign activities

Waterloo University CEMC (3- 12)

- <https://cemc.uwaterloo.ca/resources/resources.html>
- Multiple resources available, see chart:
- Full units and lessons with video available for grade 7 - 12

NEW! CEMC at Home has been developed to support teachers, students and parents during these challenging times.

Hover over a row for a brief description of a resource and click on the row to begin exploring.

	Grades 3 - 4	Grades 5 - 6	Grades 7 - 8	Grades 9 - 10	Grades 11 - 12	Teachers / Parents	Problems / Exercises	Lessons / Presentations	Games	Enrichment Focused
mathFROG	*	*			*	*	*	*	*	*
Emmy Noether Circles	*	*			*	*	*	*	*	*
Invitations to Math	*	*			*	*	*	*	*	*
Wired Math			*	*	*	*	*	*	*	*
Math Circles		*	*	*	*	*	*	*	*	*
Problem of the Week	*	*	*	*	*	*	*	*	*	*
PCF eWorkshop			*	*	*	*	*	*	*	*
Euclid eWorkshop			*	*	*	*	*	*	*	*
Past Contests			*	*	*	*	*	*	*	*
Problem Set Generator			*	*	*	*	*	*	*	*
Mathematical Software				*			*			
CS Circles			*	*	*	*	*	*	*	*
Math Careers			*	*	*	*	*	*	*	*
Real-World Math			*	*	*	*	*	*	*	*

Resources for Quick, though Provoking Math chats and talks

Which One Doesn't Belong? (3 – 12)

- <http://wodb.ca>
- Good for multiple levels and families (grades 3 – 12)
- multiple correct answers
- Encourages discussion and communication thinking
- Concept can be adapted for lower grades
- Free access

Number Talk Images (K- 12)

- <http://ntimages.weebly.com>
- Collection of images for great numeracy discussion

Steve Wyborney's blog (K- 12)

- Includes a large number of well laid out slides shows for interesting number talks with many free downloadables
- <https://steveWyborney.com/2020/02/the-12-most-popular-math-strategies-and-downloads/>

Fraction Talks

- <http://fractiontalks.com>
- Large collection of images divided into sections with suggestions on how to use in a math class, including some photos

Estimation 180

- <http://www.estimation180.com>
- 300+ Days (images) with estimation prompts
- Just put up a home scavenger hunt for families to try during COVID19 isolation

Clothesline Math (K- 12)

- <https://clotheslinemath.com>
- Focus on numbersense using a numberline
- Most examples for upper intermediate and secondary
- (SD52 Math library has e-book if you want to learn more)

Numberless Word Problems (1- 12)

- <https://bstockus.wordpress.com/numberless-word-problems/>
- Great examples to get student visualizing word problems rather than just grabbing numbers and calculating without thinking

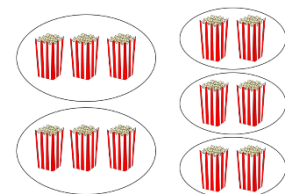
Visual Patterns (2- 12)

- <http://www.visualpatterns.org>
- Sets of 3 images showing growing and shrinking patterns that can be used to predict next set, graph, etc.



Same but Different

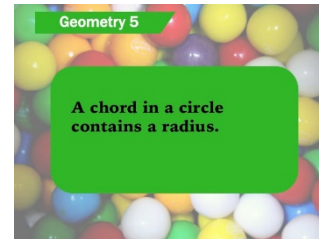
- <https://www.samebutdifferentmath.com>
- Collection of images showing 2 items that are the same in some way but also different
- Sorted according to concepts such as early numeracy, operations, algebra, geometry, etc



Always, Sometimes, Never (9- 12)

- <http://asnmath.blogspot.com>

- Images with statements about mathematical concepts as discussion starters, students discuss statement and decide if it is true, sometimes or never
- Categories covered: absolute value, conic sections, exponential functions, financial literacy, functions, circles, points/lines/planes, polygons, polynomials, real number systems, systems of equations trig identities



Problems and Tasks:

BCAMT Weekly Math Tasks

- <http://www.bcamt.ca/weeklymathtasks/>
- <http://www.bcamt.ca/category/weekly-primary-tasks/> (primary)

NCTM Math Forum Problems of the Week

- <http://www.nctm.org/Classroom-Resources/CRCC/Math-Forum-Problems-of-the-Week-Resources/>

Numeracy Tasks (Peter Liljedahl - SFU)

- <http://www.peterliljedahl.com/teachers>

One Two Infinity (Marian Small)

- <http://www.onetwoinfinity.ca>
- Good Question of the Week (tasks are also in presentation files)

Inquiry Maths (from the UK)

- <http://www.inquirymaths.com>

Open Middle (K- 12) (Robert Kaplinsky)

- “Challenging math problems worth solving”
- <https://www.openmiddle.com>

Waterloo Problem of the week

- <https://cemc.uwaterloo.ca/resources/potw.php>

Three Act Tasks

<https://gfletchy.com/3-act-lessons/>

Youcubed

- <https://www.youcubed.org/week-inspirational-math/>
- Jo Boaler’s weeks of inspirational math

Math Games:

Math for Love – games

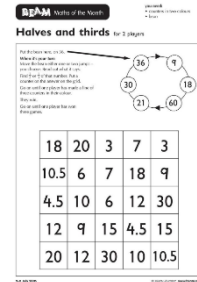
- <https://mathforlove.com/lesson-plan/games/>

Carole Fullerton

- Her blog with a few games and other ideas: <https://mindfull.wordpress.com/>
- Free downloads <https://mindfull.ecwid.com/Free-Downloads-c15606272>

BEAM

- <https://www.stem.org.uk/elibrary/collection/3310>
- BEAM game of the month is available online (these are the inspiration for many of Carole fullerton's games)



Zeno Math Dice Games

- <https://zenomath.org/toolbox/dice-games/>

NRICH Dice Games

- <https://nrich.maths.org/5896>