

# Resources

## CRMC's GA DOE Inspire Resources

We've explored the GA DOE Inspire curriculum and highlighted CRMC manipulatives that bring lesson plans to life! Click the folders below to explore resources for your grade level.

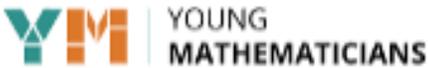
- [Elementary Curriculum](#)
- [Middle School Curriculum](#)
- [High School Curriculum](#)

## Teacher Resources

Elementary School Resources

### Resource List for Grades K - 2

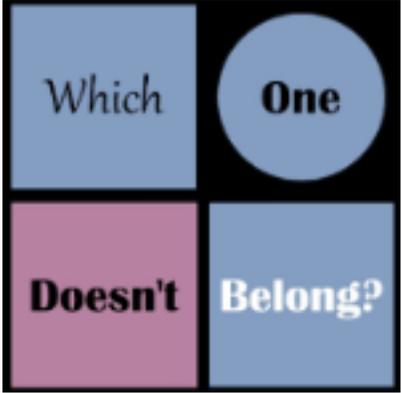
Carlie Oelke [oelke\\_carlie@columbusstate.edu](mailto:oelke_carlie@columbusstate.edu)

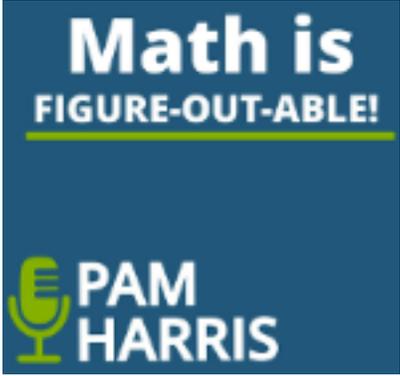
Name	Link	Description
Number Talk Cards 	<a href="https://numbertalkscom.wordpress.com/number-talks-models/">https://numbertalkscom.wordpress.com/number-talks-models/</a>	Ready-made number talk card images for students to practice subitizing. Teachers can print or insert into any power point with this free resource. Explore the different patterns to facilitate a number talk and watch how the cards progress throughout the school year.
Steve Wyborney Estimation 	<a href="https://steveWyborney.com/">https://steveWyborney.com/</a>	Explore Steve Wyborney's free resources to change up your number talk routines. Use Splat! For finding missing parts while subitizing, Estimation Clipboards for estimation practice, and use his 20 Days of Number Sense & Rich Math Talk to kick off your number talk routine.
Virtual Manipulatives 	<a href="https://www.didax.com/math/virtual-manipulatives.html">https://www.didax.com/math/virtual-manipulatives.html</a>	Missing a class set of manipulatives? Try Didax's virtual manipulatives. They have everything from Unifix Cubes, Ten Frames, Rekenreks, and Base Ten Blocks to be able to share with students or project for a lesson.
	<a href="https://youngmathematicians.edc.org/math_games/">https://youngmathematicians.edc.org/math_games/</a>	Kindergarten, this is the site for you! Explore research backed math games to implement in your classroom based on topic. Videos are provided for deeper knowledge on targeted concepts and all printable resources are provided.

Name	Link	Description
Math Visuals by Berkeley Everett 	<a href="https://mathvisuals.wordpress.com/">https://mathvisuals.wordpress.com/</a>	Berkeley Everett shares Math Visuals and videos with instructions on how to use in the classroom to enhance student math talk. Check out his free printouts as well to use in your classroom!

## Resource List for Grades 3 - 5

Karen Hensen [hensen\\_karen@columbusstate.edu](mailto:hensen_karen@columbusstate.edu)  
 Measurement and Data 45

Name	Link	Description
	<a href="https://numberlesswp.com/">https://numberlesswp.com/</a>	Help students overcome the “words” of word problems by removing the numbers. Organized by CGI. A ready resource for all teachers.
	<a href="https://wodb.ca/">https://wodb.ca/</a>	Find the one image that doesn't fit with the other three. Every image has the potential to “not belong.” Scroll to the bottom of the homepage for links to related sites.
	<a href="https://www.openmiddle.com/">https://www.openmiddle.com/</a>	Challenging math problems to get students thinking! The tasks have a final correct answer, but there are multiple ways to approach and solve the problem. Organized by grade level.
	<a href="https://gfletchy.com/">https://gfletchy.com/</a>	<ul style="list-style-type: none"> <li>• Problem based learning with 3 Act Tasks</li> <li>• Progression Videos – short videos that show content across grade levels.</li> </ul>

Name	Link	Description
	<a href="https://podcast.mathisfigureoutable.com/">https://podcast.mathisfigureoutable.com/</a>	<p>Podcast from Pam Harris that will get you excited that math is not just mimicking procedures and steps but figure outable and kids can do it! Get students “thinking” about math not just “doing” math.</p>
Polypad 	<a href="https://mathigon.org/polypad">https://mathigon.org/polypad</a>	<p>Virtual manipulative site with applets for geometry, algebra, numbers, fractions, probability and data, and a few more goodies listed as “games and applications”.</p>
	<a href="https://www.mashupmath.com/freemathpuzzles">https://www.mashupmath.com/freemathpuzzles</a>	<p>Math Puzzles for all grades. Activities Include: Number Sense, Two Truths, and a Lie, Which One Doesn't Belong, Think Notice and Wonder, Riddles, Puzzles, Brain Teasers and so much more!</p>

## Student Engagement

- [I notice, I wonder...](#)
- [Excel Spreadsheet of Children's Literature with Mathematics Connections](#)

## Number Talks

- [Grades K-1 Dot Images with Animation](#)
- [Grades K-1 Dot Images without Animation](#)
- [Grades 2-5 Dot Images](#)

## Open Ended Tasks

- [Animal Friends](#)
- [Apple Snails Problem](#)
- [Baking Cookies](#)
- [Balloons](#)
- [Birthday Cakes](#)
- [Buckets of Fish](#)
- [Carl the Carpenter](#)
- [Cell Phones](#)
- [Cookie Monsters](#)
- [Dogs](#)
- [Fred's Fabulous Friday](#)

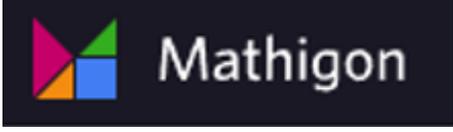
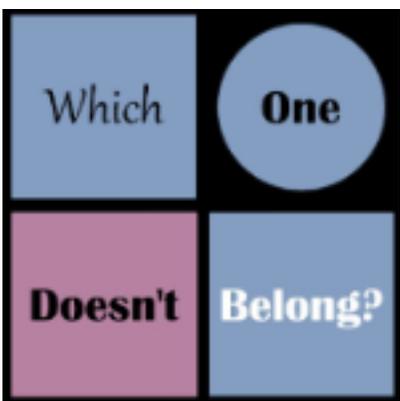
- Fruit by the Foot
- Fruity Snacks
- Have You Lost Your Marbles?
- Help! Repairs Needed
- Here, Birdie, Birdie
- Hospital Help
- How do you like your eggs?
- Hungry Man Burgers
- I Ate the Whole Bag
- Jelly Beans
- Jonah's Lunch
- Leap Frog
- Lucky Four-Leaf Clovers
- Max the Bus Dog
- Mike the Mechanic
- Movie Time
- Music Class Performance
- Name Game
- Nancy's Number
- Party Table
- Party
- Pattern Block Patio
- Pizza Party
- Playdough Project
- Quilts for Troops
- Raisin Fun
- Real Estate Profits
- Run For Cover, Aliens
- Scarecrows
- Sharing Cookies
- Soccer Time
- Stickers Among Friends
- Stocking the Supermarket
- Student Council Meeting
- The Garden
- T-Shirt Design
- When is Your Birthday?
- Wholey Cow
- Wild Animal Park
- You'll Double My Allowance

#### Middle School Resources

### Resource List for Middle School (Grade 6-8)

Hope Phillips [phillips\\_hope@columbusstate.edu](mailto:phillips_hope@columbusstate.edu)

Name	Link	Description
Polypad	<a href="https://mathigon.org/polypad">https://mathigon.org/polypad</a>	Electronic manipulative site with applets for geometry, algebra, numbers, fractions, probability, and data, and a few more goodies listed as "games and applications".

Name	Link	Description
		
	<a href="https://phet.colorado.edu/en/simulations/filter?subjects=math&amp;type=html,prototype">https://phet.colorado.edu/en/simulations/filter?subjects=math&amp;type=html,prototype</a>	<p>Phet provides fun, free, interactive, research-based mathematics (and science) The simulations are written in HTML5 (with some legacy simulations in Java or Flash) and can be run online or downloaded to your computer. All simulations are open-source simulations.</p>
	<a href="https://wodb.ca/">https://wodb.ca/</a>	<p>Find the one image that doesn't fit with the other three. Every image has the potential to "not belong." Scroll to the bottom of the homepage for links to related sites.</p>
	<a href="https://estimation180.com/">https://estimation180.com/</a>	<p>Over 200 images where students must estimate the answer to the visual scenario. Examples include height, length, weight, and time. Some images have a reveal-the-answer video.</p>
	<a href="https://www.geogebra.org/math">https://www.geogebra.org/math</a>	<p>Applets cover algebra, geometry, measurement, number sense, operations, and probability and statistics. Use the applets in your lessons as warm-ups, starters, explorations, practice, exit tickets, etc. These resources are continually being added to, updated, and improved.</p>

## Other Resources

- Middle School Tasks from CRMC
- Link to a site with a variety of Blackline Masters for Mathematics in Word and PDF Format

High School Resources

## Resource List for High School (Grade 9-12)

Name	Link	Description
	<a href="https://mathmedic.com/">https://mathmedic.com/</a>	Each lesson begins with students working collaboratively in text-sm groups through a sequence of carefully crafted questions that slowly build in complexity (Experience First). Following this activity, the teacher facilitates a discussion connecting students' ideas with academic vocabulary and notation (Formalize Later). This approach encourages students to build strong math identities and take an active part in mathematical sense-making.
	<a href="https://teacher.desmos.com/collection/featured-collections?r=w.ph&amp;utm_source=substack&amp;utm_medium=lesson-building">https://teacher.desmos.com/collection/featured-collections?r=w.ph&amp;utm_source=substack&amp;utm_medium=lesson-building</a>	Explore the Desmos Classroom platform's free digital lessons and lesson-building tools
	<a href="#">GeoGebra - the world's favorite, free math tools used by over 100 million students and teachers</a>	"An Oldie but a goodie" - This website just keeps getting better and better. They have organized their resources to make them easy to use. The lessons can be sent to the class and monitored in real time – like Desmos but different.
Mathigon's Polypad 	<a href="https://mathigon.org/polypad">https://mathigon.org/polypad</a>	The most dynamic and versatile math tool I have seen in years! It can be structured so individual sheets can be sent to students as an assignment. It is imbedded in Desmos as a tool as well.
	<a href="http://tasks.illustrativemathematics.org/HSA">http://tasks.illustrativemathematics.org/HSA</a>	A problem-based core curriculum built on the principle that all students are capable learners of grade-level mathematics. Students learn math by doing math. They are encouraged to use their current understanding of math, their lived experiences, and the world around them as resources for problem solving.

Name	Link	Description
	<a href="https://www.openmiddle.com/">https://www.openmiddle.com/</a>	Challenging Math Problems worth Solving. Challenges Sorted by grade and standards.
Math Warmups by Geoff Krall  <b>EMERGENT MATH</b>	<a href="https://emergentmath.com/2022/07/12/explainer-post-a-years-worth-of-algebra-warm-ups/">https://emergentmath.com/2022/07/12/explainer-post-a-years-worth-of-algebra-warm-ups/</a>	Forgive me – but if you are doing test prep questions as bell ringers – you are wasting time – Try these if you want meaningful math at the start of class.

### Beginning to Solve Equations

- [Beginning to Solve Equations](#)
- [Rational and Irrational Numbers](#)

### Geometry - Volume Lab Handout

- [Problem Solving Framework - Editable](#)
- [Problem Solving Framework v 8.1](#)

### Geometry - Volume Lab Research and Related Work

- [Funsized Cans](#)
- [Golden Crown](#)
- [Propane Tanks](#)
- [Tennis Balls in a Can](#)
- [Volume of Compound and Irregular Shapes](#)
- [Volumes of Compound Objects](#)
- [Volume Lab \(PPT\)](#)

### Introduction to Imaginary Numbers

- [Imaginary Numbers - Troup Algebra 2](#)
- [Imaginary Numbers Research](#)
- [Numbers for Imaginary Numbers Lesson](#)

### Other Links

- [Link to Real World Problems](#)
- [Link to Okefenokee RESA Math I and II Resources](#)
- [Link to Atlanta Public Schools Math I and II Resources](#)
- [Math II Unit 3 - Differentiated Circles Task](#)
- [Link to Math III PBWorks Wiki](#)
- [Link to a site with worksheets and activities for Algebra I, geometry, and Algebra II](#)

### Just in Time for Analytic Geometry Workshop

- [Link to presentations by Dr. Jennifer Brown](#)
- [Day 1 Handout - Thurman](#)
- [Day 2 Handout - Thurman](#)
- [Day 3 Handout - Thurman](#)

### Research in Mathematics Education

- Open and Closed Mathematics
- Beyond Procedures: Building Deeper Mathematical Understanding
- Revealing Student Thinking Through Alternative Assessments
- Integrating Holistic and Analytical Reasoning for Equitable Success
- When a student perpetually struggles
- Language Proficiency in Mathematics and Enumeration
- Equity in Math: From Early Learning to Social Justice
- Teaching That Inspires: Turning Math Lessons into Motivation
- Technology-Based vs. Traditional Instruction in a Math Classroom

### Manipulatives Explained

- Coordinate Pegboard
- Go! Motion Detectors
- The Big Clock Manipulative
- Fraction Circles
- Fraction Formula Game
- Folding Geometric Shapes
- Mathematical Balance
- C-Link Counting Chains
- Coins and Bills
- Magna Tiles
- Cuisenaire Rods
- Teaching with Fraction Circles
- Virtual Coin Manipulative
- Katie Kubes
- Counting Blocks
- Two Color Counters
- Money Dice and Coins
- Pattern Blocks
- Balance Scale and Teddy Bear Counters
- T.I. Rover Tutorial

### Professional Development

- An Introduction to "Function of the Day"
- Function of the Day in Action: Independent & Partner Practice
- Guided Notes with Function of the Day
- Figure of the Day

## Other Resources

### Worthwhile Math Resources

Name	Link	Description
Meriwether County Math Page	<a href="https://sites.google.com/mcssga.org/curriculum-and-instruction6-12/hs-resources/math">https://sites.google.com/mcssga.org/curriculum-and-instruction6-12/hs-resources/math</a>	A well thought out and supported page. You will find some useful resources here! Contact – Joanne Britt - joanne.britt@mcssga.org
West Ga RESA Math Page	<a href="https://www.garesa.org/o/wgresa/page/math-professional-learning">https://www.garesa.org/o/wgresa/page/math-professional-learning</a>	This is an interesting page with a focus on GA state resources and some cool graphics. I like the cartoon

Name	Link	Description
		page about math! Contact – Renee Hoard - rhoard@garesa.org
Georgia Council of Teachers of Mathematics	<a href="https://www.gctm.org/">https://www.gctm.org/</a>	This Page is dedicated to information about Georgia Math teachers and is valuable if you are planning to attend the Conference at Rock Eagle in October!
National Council of Teachers of Mathematics	<a href="https://pubs.nctm.org/">https://pubs.nctm.org/</a>	The NCTM Publications website provides access to NCTM journals and selected books. The website offers a variety of useful tools to ease navigation and search functions.
Chatt-Flint Math Page	<a href="https://sites.google.com/chattflint.org/chattahoochee-flintresa/services/math-mentor">https://sites.google.com/chattflint.org/chattahoochee-flintresa/services/math-mentor</a>	Math Mentor Page – is under construction as of 8-11-23 but I expect some good things to be here soon. - Contact is Angie Brunson - abrunson@chattflint.org

- [Enhancing City Design](#)
- [Project Based Learning Art Sculpture - Brookstone, Columbus Museum, and Math Collaborative Partnership](#)
- [Function of the Day Resource](#)
- [GCTM 2024 Peter Anderson](#)
- [GCTM 2024 Lisa Arnholt and Ezra Gonzales](#)
- [GCTM 2024 Ezra Gonzales](#)
- [GCTM 2024 Karen Hensen](#)
- [GCTM 2024 Hope Phillips](#)
- [CSU Department of Mathematics](#)
- [In This Class, Mistakes Are... \(printable PDF\)](#)
- [National Council of Teachers of Mathematics](#)
- [Georgia Council of Teachers of Mathematics](#)
- [Parent's Corner](#)

## Archives

Middle School Resources

[Vodcasts for Teacher Quality Projects](#)

High School Resources

[Connecting Mathematical Representations - Teacher Quality Project FY 2018](#)

[Developing Conceptual Understanding of High School Mathematics - Teacher Quality Project FY 2017](#)

[Modeling Lessons for FY 2016 Teacher Quality Project - Functions & Modeling for the CCGPS](#)

Georgia Mathematics Conference at Rock Eagle

GCTM 2023

- [GCTM 2023 Peter Anderson](#)
- [GCTM 2023 Lisa Arnholt](#)

- GCTM 2023 Karen Hensen
- GCTM 2023 Hope Phillips

**GCTM 2019 - Magnitude -- It's Not Just for Earthquakes: Building Students' Understanding of Number Relationships**

- Betweeners Place Value Dice Game Directions
- Betweeners Score Sheet for Students
- Betweeners Score Sheet for Students-1
- Betweeners Score Sheet Show All Possible Numbers
- Let's Roll and Betweeners Decimal Spinners
- Let's Roll Exit Slip
- Let's Roll Student Recording Sheet and Directions
- Place Value Chart to Thousandths
- Place Value Chart Whole Numbers
- Place Value Grids 1 per Page Landscape
- Place Value Grids 2 per Page
- Place Value Grids 6 per Page
- Quiz Take as Much as Standard
- Quiz Take Whole Numbers Standard and Word Form
- Using Number Lines to Develop Number Sense WS

Fall MathFest - Connecting Mathematics to a World of 7 Billion Presentation