Yes, you **CAN** use Chromebooks in the **MATH** classroom!

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Hello!

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Feeling left behind in a world of “Google Docs?”

You’re not alone!
Models matter!

Non-touch Chromebooks

Touch-enabled Chromebooks

Need us to demonstrate touch-based Chromebooks to your school or district? Let us know!
If you have touch-enabled Chromebooks
Let’s use **Chromebooks for authentic assessments**

- **Problem:** “On your homework assignment, show your work, line by line!”

- **Solution:** Occasionally, require a voice explanation and narrate a problem.
Highly recommended: Clarisketch

- It’s a free, recordable whiteboard, usable in centers or individually.
- Authentic assessment - not for every single problem but for basic explanations
It’s useful for teachers, too!

Clarisketch

- Put your problems/demonstrations online
- Helpful when you get to “difficult” math problems/ones that parents may not recognize.
If you have touch OR non-touch ready Chromebooks
VoiceOver tools:
Screencastify (Chrome, PC/Mac), DEMO (and annotation tools) - hold up homework and take a pic / narrate!
Or even... FLIPGRID.

Step One: Hold your homework to the webcam.

Step Two: Explain the most difficult problem.

Step Three: Talk about how you got to an “Ah-ha!” moment or how you got “unstuck” or “Why the answer makes sense.”
Use Chromebooks for individualized practice

... and many more!
Using Prodigy

- This is a K-8 tool appropriate for students to have “social math practice”
- Professional and personal experience with the tool: Top ten and a sleepover
Using xtraMath.org

● It’s just memorization of basic facts for K-5

● Completely free; works on Chromebooks OR iPads.
Using **MathGames.com**

- Easy practice, student logins optional
- Has both academic and game activities
- Common Core Aligned for PreK - 8
Using KHAN ACADEMY

- Easy no-frills practice, student logins optional
- Common Core Aligned for PreK - High School
How do I make math problems? Use this **Chrome** extension!

- Easy way to enter equations into Google Docs, Google Sheets, and even Google Forms.
- Teacher accounts are free; student accounts are about $1/year.

If you didn’t attend the session, ignore “Iron Mike” on this slide. :)
Use your equatIO pictures in places like...

QUIZIZZ
KAHOOT!
SOCRATIVE
Use Chromebook friendly websites like GeoGebra.com

- Example 1
- Example 2
Use Chromebook friendly websites like DESMOS.com

Hey, students!

Go to student.desmos.com and type in:

XDR HQC
Use **EMOJI icons** in worksheets!

Directions: Use the distributive property (if needed) to simplify each side of an equation, then solve for the value of the emoji.

1. 2(.coin + 5)=16
4. 5(coins) + 3=2(coins) + 15

- Use Insert, Special Characters, Emojis to insert these picture symbols which will resize with the text.
If you have additional resources for math & Chromebooks
Use **3D Printers** to illustrate concepts of scale, measurement, and design.

- Use TINKERCAD and other tools to design objects
- Printing is optional.
Tinkercad and the **scale problem**
New: BlocksCAD3d.org

- Computer Science / Mathematics with 3D printing
- A great replacement for “Hour of Code” activities you’ve been using for several years
BlocksCAD uses DRAG and DROP

```
translate((0,0,35))
union()

// adds decorations

// add hook differences()
{
  translate((0,0,36))
  rotate((0,0,0))
  Cylinder(r=6,center=true,h=20);
  translate((0,0,36))
  rotate((0,0,0))
  Cylinder(r=2,center=true,h=20);
  sphere(r=13.5,center=true,fn=96);
}
difference()
{
sphere(r=35,center=true,fn=96);

// subtracts decorations

decor_10c(0.5668632,0.2415618,0.7851571,0.4,20,0,31);
decor_10c(0.6572493,0.3825938,0.6628165,0.4,20,0,31);
decor_10c(0.2162528,0.3202463,0.6806434,0.4,20,0,31);
decor_10c(0.9401875,0.2755285,0.2805506,0.4,20,0,31);
decor_10c(0.1342805,0.6223839,0.7711529,0.4,20,0,31);
decor_10c(0.7829989,0.1241316,0.6189434,0.4,20,0,31);
decor_10c(0.2322668,0.3879572,0.2552872,0.4,20,0,31);
```
Physical Breakout (EDU) or FLIPPITY.

- Google Forms give LOTS of options for math-only Breakout clues
- Make the answers non-Google-able.
The QR Code Extension (Web Store)

- Generates and Scans QR Codes
- Free install / allows you to do activities from Pinterest, TpT, and self-created adventures.
- Great for treasure hunts

Offered by: Manuel Braun

⭐⭐⭐⭐⭐ 478 | Productivity | 2,093,794 users
So how does it all fit in?

Five lesson ideas to get you started
Lesson idea #1: Five Star Restaurant

You need: Chef’s Hat, Chef’s Coat, White Tablecloths ($10)

- Give each student a menu as they enter the classroom.
- They must choose one problem from the appetizer section, one main course, and one dessert.
- Have students “Chromecast” their best solution up to the projector.
Lesson idea #2: Quick Homework Check

Use the built-in image snapshot tool to have students capture a picture of their math homework and insert it into a Google Doc. Have them reflect on the hardest parts.

Or, as we suggested, use Screencastify or even FLIPGRID to capture students.
Lesson idea #3: Use Quizizz to make in class practice.

Have students practice the quiz over and over again, with the timer off, so that you can have students use it as “in class practice” instead of problems from the text.

Not done? Finish for homework!
Lesson idea #4:
Use Google Slides to make pictographs!

Each airplane = 25,000 planes produced (World War II) → ← This is a symbol

United States
Germany
USSR
UK
Japan
Lesson idea #5: Geogebra for applied trig Practice

“You’re looking at a plane at a 40 degree angle. Your school is 20 miles away from O’Hare. How high is the plane?” Use Geogebra.

Know the trig trick?
What does this technology allow me to do NOW that I couldn’t do BEFORE?
We are technology trainers for teachers, by teachers.

Find me after the session
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Thanks!

Any questions?

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Credits

Special thanks to all the people who made and released these awesome resources for free:

- Presentation template by SlidesCarnival
- Photographs by Unsplash