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Google for Education

# Actively engage students with STEAM

Teach with Chrome Series

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### Speaker slide



### **Margaret Powers**

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Find me on Twitter: <u>@mpowers3</u>



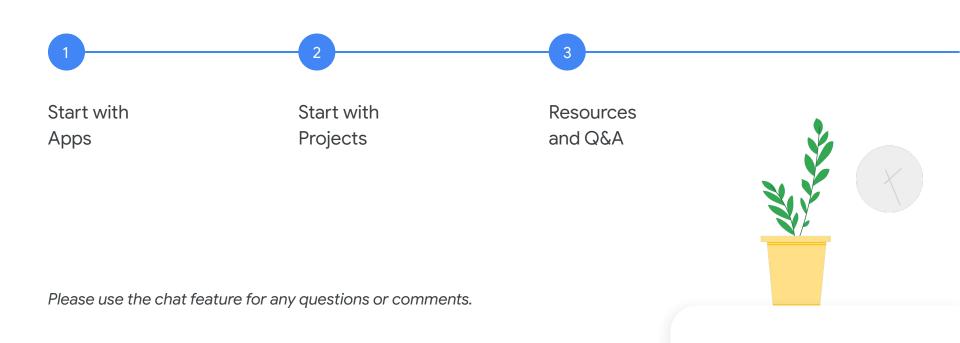
### **Donna Teuber**

Google for Education Certified Trainer, Innovator, and Coach **Kiker Learning** 



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# Agenda



# What is STEAM?

"An educational approach to learning that uses science, technology, engineering, the arts, and mathematics as access points for guiding student inquiry, dialogue, and critical thinking"

- Education Closet



Option 1

# Start with Apps





### Find Your Tools Chromebook App Hub

The <u>Chromebook App Hub</u> is a great place to spend some time looking for new apps that will work with Chromebooks and align to your learning goals.

Filter by category, like "STEM" or "drawing and illustration" or age range and find the resources that will best support your students!



# STEAM Learning on a Chromebook



### Code.org

- Support students in learning how to code
- Courses span a K-12 computer science pathway
- Free to use, easy to get started



### LittleBits Code Kit

- Learn basic circuitry
- Engage students in engineering
- Explore how to apply code to the physical world

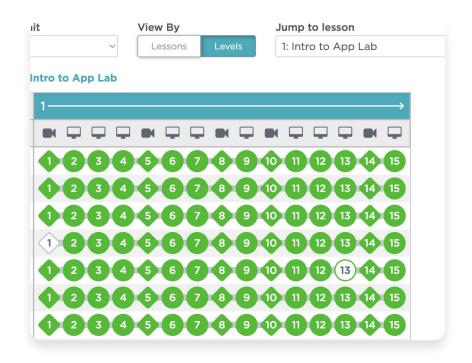


### **EquatIO**

- Easily type or handwrite virtually any mathematical expressions
- Create interactive math quizzes and assignments

# Code.org TeacherTools

- Synch with Google Classroom
- Push out courses to different sections
- Track individual student progress



# littleBits Code Kit Chrome App

- Includes standards-aligned curriculum
- Handouts & Workshop Guide
- Easy to get started!



# EquatIO

- Integrates with Google Workspace products and allows math to become collaborative
- Easily share mathspace assignments to Google Classroom

2r + 18	
$\frac{2r+18}{r^2+8r-9}$	
Your answer	
Find the zeros of each rational function: *	
$f(x) = \frac{x^2 + 2x - 15}{x + 1}$	
Your answer	
Find the zeros of each rational function: *	
$f(x) = \frac{x^2 + 6x + 8}{x^2 + x - 2}$	
Your answer	

Option 2

# Start with a Project

# STEAM Projects on a Chromebook

### **Book Creator**

- Easily combine STEAM subjects
  into one project
- Low floor, high ceiling
- Supports student creativity, collaboration, and critical thinking
- Check out their templates!



#### <u>Tinkercad</u>

- Engage students in 3D design, coding, and circuitry
- Model online or export for laser cutting, 3D printing, & fabrication!
- Free to use & lots of great lesson plans!



### App Smash!

- Slides (storyboard)
- <u>Pexels</u> (images)
- Flipgrid (video)
- <u>EarSketch</u> and <u>breakbeatcode</u>
- Forms (reflections)

# **Book Creator**

- Choose from diverse templates to guide
  student design
- Easily integrate different STEAM disciplines
- Students can collaborate across devices
- Embed audio, video, images, maps, and more!



The Aztecs settled in Central Mexico around 1325 c.e. When they got there they realized that other groups, the Teotihuacans and the Toltecs, were there before them. This made settling so much easier because they already had a place to start.

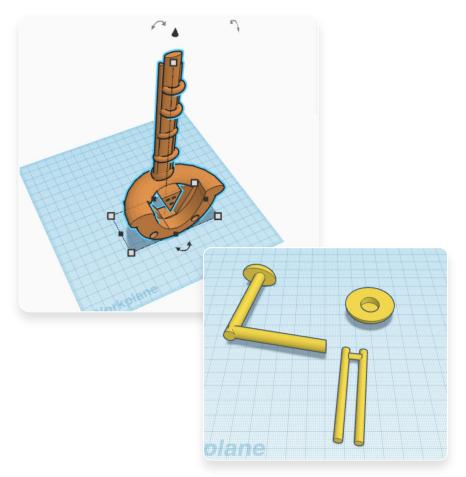
The land where they settled was an island which was good because they could find fish and it was easy to defend. The Aztecs expanded and reclaimed land from the lake by sinking the **timbers** and filling the area in between with boulders, reeds and mud. This created small islands that were called **chinampas** that they used to expand there city.

Listen here to hear about the awesome aztec legend and how it all started!!!



## Tinkercad

- Supports 3D design, circuitry, and coding
- Lesson plans from the Smithsonian
- Tutorials make it easy to get started
- Great tool for students to prototype products and demonstrate learning



# Let's App Smash!

- Use a few different apps to complete a project
- Make something in one app and use it in another or just use one after another to accomplish your goals



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Section 3

# **Resources and Q&A**

#### Get to know Chromebooks

#### Chromebook App Hub

CO <u>Google for Education teacher resources</u>

#### C Experiments with Google

CD Applied Digital Skills



Resources



Q&A





# Thank you