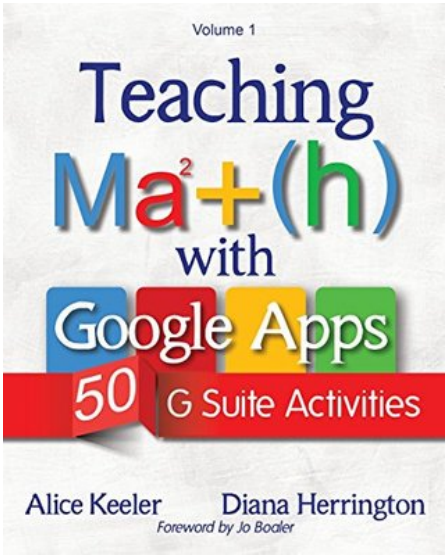

Teaching Math with Google Apps, Volume 1: 50 G Suite Activities

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“Why do I need to know how to do math when I can find the answer on my phone?”

If you’ve ever heard a variation of that question from your students—or asked it yourself—this book is for you. Bringing technology into the classroom is about so much more than replacing overhead projectors and chalkboards with Smart Boards. Unfortunately, as Stanford Professor Jo Boaler says, “We are in the twenty-first century, but visitors to many math classrooms could be forgiven for thinking they had stepped back in time and walked into the Victorian era.” But that’s all about to change . . .

In Teaching Math with Google Apps, author-educators Alice Keeler and Diana Herrington reveal more than 50 ways teachers can use technology in math classes. The goal isn’t using tech for tech’s sake; rather, it’s to help students develop critical-thinking skills and learn how to apply mathematical concepts to real life.

Memorization and speed tests seem irrelevant to students who can find the solution to almost any math problem with a tap of the finger. But today’s digital tools allow teachers to make math relevant. Specifically, Google Apps give teachers the opportunity to interact with students in more meaningful ways than ever before, and G Suite empowers students to stretch their thinking and their creativity as they collaborate, explore, and learn.

Teaching Math with Google Apps shows you how to:

Create engaging activities that make math relevant to your students
Interact with students throughout the learning process
Spend less time repeating instructions and grading work
Improve your lessons so you can better meet your students’ needs
Packed with lesson ideas, links to downloadable templates, step-by-step instructions, and resources, Teaching Math with Google Apps equips you to bring your math class into the twenty-first century with easy-to-use technology. What are you waiting for?

Teaching Math with Google Apps, Volume 1: 50 G Suite Activities Details

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From Reader Review Teaching Math with Google Apps, Volume 1: 50 G Suite Activities for online ebook

Kenneth says

The strategies are quality, but the real strength is in how it lays the ground work to move math beyond memorizing algorithms.

Andrea Sisk says

The book Teaching Math with Google Apps- 50 G Suite Activities, written by Alice Keeler and Diana Herrington, is a great book to read for someone that is using Google Chrome in their classroom and wants to add technology to the math lessons. It is setup like an instructional guide. The book guides teachers through the process of using different Goggle features and changing the way math is taught.
In the first section of the book, the authors say “shifting from using primarily pencil and paper to digital tools in the classroom requires a shift in mindset” (Herrington & Keeler, 2017, loc. 246). The idea behind adding technology to a math lesson is getting the students more engaged. When the students are more engaged, the learning results will be more substantial.
Teaching Math with Google Apps starts by examining the different tools in the G Suite. Google Docs, Google Sheets, Google Slides and Google classroom are all discussed. Step by step instructions are given for each of these topics, and there are screenshots and links in almost all of the sections. I found this to be very helpful when I was reading the book on the Kindle Cloud. Most of the links contained a copy of the template for the activity that they were teaching about. I just clicked on the link, and I was able to save a copy of the template in my Google Drive. I am extremely grateful for this feature. One of the ideas that they shared was using quarter sheets of paper to answer math problems. The student could then take a picture of the paper and insert onto a Google Slide. The students could then collaborate and give feedback to their peers. Another idea that was discussed was to “Teach Like YouTube and Google exist” (Herrington & Keeler, 2017, location 477). The authors suggested that the teacher have the students look up the information rather than giving the information to the student. This will encourage students to utilize skills that they already know how to do. Although there are many ideas that I enjoyed in this section, the one that stuck with me was the idea of giving the students a list of questions and have them choose 3 of the questions to demonstrate understanding. Alice Keeler even put a link to a template for this. These are just 3 of the ways that you could add Google to your math lessons.
The next section of the book the authors wrote Google tutorials. The explained how to use Google Drive and many of the aspects of Google suite. The screenshots and links are a great help for someone that has never used their Google Drive. One thing that I learned in this section is “In the File menu of Google text documents, Slides, Sheets, and Drawings, you can view all of the revisions of a document.” (Herrington & Keeler, 2017, Location 1769). I had no idea that this was possible. I thought that when you change something, it was lost forever. I am sure to use this feature at some point.
The last section of the book was regarding Add-ons. “Add-ons are third party (not made by Google) scripts that give additional functionality to a Google Doc” (Herrington & Keeler, 2017, Location 1881). I am amazed at all of the Add-ons that are listed for math. It also amazes me how many of the Add-ons have Alice Keeler’s name on them. The list is broken down into each section of Google Docs. I am sure that this list is not conclusive, but it is a great place to start if you can. I have already tried to add the Tynker extension to my school Google account but unfortunately or Firewall blocks it. I was able to use Google Classroom to post the URL so my students could access the site. So far they like the different coding choices that it offers.

The book contains many resources that a teacher would find useful in their class. I suggest purchasing this book and reading it on the Kindle Cloud. You will find it easier to view the links that the author has so graciously shared with all of us.

Melissa says

If you are new to Google Suite and teaching math, then this is the book for you. If you are already familiar with google docs, forms, slides, and classroom, then this will help you incorporate some new apps that can be used to faciliate math teaching. Some good suggestions that I will begin to use right away. The author also has many templates for math available on her personal website that can be downloaded to your drive and are discussed in more detail in the book.

Stella Pollard says

Let me start off by saying that I am a HUGE GoogleEDU fan and have been for three years. I have read a lot of PD books and am always looking for resources. This book had so much new information for me!

I love it when I find a book that has as ready to use resources provided throughout the book! Each of the 50 activities that are provided in this book have templates, real examples, and other resources to use in the classroom. My brain is spinning with all of the activities that I now can use with my kids. Out of the 50 activities, sure one of the tools (gMath) isn't available any longer. Do you know why? Because gMath is now named Equatio and was purchased by Text Help. All of these resources are still relevant and still as amazing as the day the book was published. This book is for any math teacher who is wanting to fully embrace the power that Google has for math classes. I highly recommend it!

Evelyn Espinoza says

My impressions with Alice Keeler and Diana Herrington’s Teaching Math with Google Apps: 50 G Suite Activities are mostly positive. The book is easy to follow, conversational, and interactive. I purchased the Kindle version, and it came with a plethora of links and resources that I was able to save into my Google account. Most impressive were utilizing Google Sheets for formative assessment as a direct download from Google Forms, utilizing Google Slides for Geometric Constructions (simple, yet it had never occurred to me), and Pixel Art using math problems and Google Sheets. The resources are too many to count, and the templates are amazing. There are a few collaborative Google Slide projects that are already included as template hyperlinks. The knowledge and creativity of the two authors is impressive. Both authors are veteran teachers and have conducted technology forums for professional development. Alice Keeler has an active blog with links, resources, and articles. Diana Herrington has won prestigious awards such as the PAEMST and the CVCUE teacher of the year award.
On a more personal note, the book provides pedagogical advice that I appreciated. It begins with a Foreword by Jo Boaler on the features of 21st Century learning and the importance of moving students ‘’from passive receivers of knowledge to active inquirers” (Keeler & Herrington, 2017). This has been a recurring theme for me and I am glad that I was provided with the tools to begin this journey. The book focuses on central ideas it introduces in the beginning which are: 1. Post Directions, 2. Watch Students work, 3. Collaboration, 4.

Shift Students to Higher DOK Levels, 5. Student Research, 6. Shift to Facilitator, and 7. Conversations for Deeper Understanding. Throughout the book, both Keeler and Herrington attempt to provide resources to navigate these seven categories. They provide screen shots of G Suite that address the specific need. Aforementioned, the Kindle version also comes with hyperlinks and templates. One of my favorite quotes is "We do students no favors by doing the thinking for them" (Keeler & Herrington, 2017), which is an important part of 21st Century learning.

The activities are meant to have students do their own discovery, research, and develop in critical thinking. I especially like their argument about always posting directions as teaching students the life skill of figuring things out. The authors share that directions can be posted through G Suite in several ways. Educators can post on Google Classroom, through Google Sites, or as a Google Document/Google Slide. This lessons educator frustration in having to repeat instructions, and utilizes less time on repeating directions, and more time to work with individual students and small groups. The authors discuss the importance of feedback while students are working as opposed to after. The logic to this is that one students feel like a project is complete, they are less responsive to feedback. Feedback throughout the process is more effective and can be done through the comment insertion text box on Google Docs and Google Slides. The book also discusses several G Suite activities that will promote collaboration and examples in how to utilize Google doc, slides, or sheets simultaneously through group effort. This is where they introduced the Problem Solving 3 Ways template, which I plan to use. It is a Google slide document that allows students to work together to fill in on a Google Slide three different approaches to the same problem.

Another recurring theme throughout the book is to have students conduct their own research. The authors suggest utilizing Google sheets to organize information, creating graphs, writing equations, and displaying results (Keeler & Herrington, 2017).

One project that I plan to implement in my own classroom is through the use of Flights.google.com as an expense tracker for any destination a student wants to go to have them calculate a travel expense budget.

Lastly, the utilization of Google Forms is what I have been trying to implement throughout this year for formative assessments. According to Keeler, "Using Google Forms, students can explain their thought process in a paragraph format. Google Forms enables students to focus more on the strategy rather than the steps to the solution since they must answer with a written response" (Keeler & Herrington, 2017). Up until reading the book, I did not know that Google Forms has a math add on, that was a reason I had not sought to utilize it. Apparently, it does! You can find it in Forms by clicking the three buttons, clicking Add-ons ad locating the g(Math) for Forms button. This allows you to create Math Expressions on it.

Overall, I found this book useful and informative to utilize in my own classroom. I found the content to be informative and the authors to be knowledgeable.