




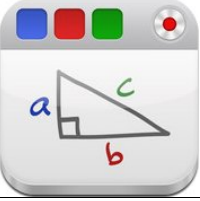



# Math App Guide | Collaboration and Critical Thinking




Engaging 2C Learning: Developing Critical Thinking and Collaboration in the 21st Century Mathematics Classroom

TLLP 2013: Cardinal Ambrozic C.S.S.


## Collaboration, Communication and Creativity Apps

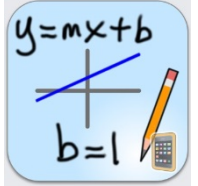
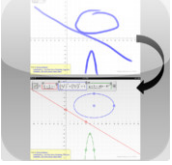
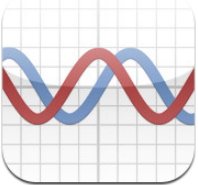

App Name	Description	SAMR	Cost	Topic	Link
<b>VoiceThread</b> 	<p>Create and share dynamic conversations around documents, snapshots, diagrams and videos -- basically anything there is to talk about. You can talk, type, and draw right on the screen. VoiceThread takes your conversations to the next level, capturing your presence, not just your comments. Anyone can join the discussion from their iPhone, iPad, iPod touch, Mac or PC -- anytime, anywhere.</p>	REDEFINITION	FREE	Collaboration, Communication	<a href="https://itunes.apple.com/ca/app/voicethread/id465159110?mt=8">https://itunes.apple.com/ca/app/voicethread/id465159110?mt=8</a>
<b>Doceri</b> 	<p>Combining screencasting, desktop control, and an interactive whiteboard in one app, you'll never have to turn your back to the class or audience again. Doceri does it all!</p>	REDEFINITION	FREE APP \$30pc	Remote Desktop	<a href="https://itunes.apple.com/ca/app/doceri/id412443803?mt=8">https://itunes.apple.com/ca/app/doceri/id412443803?mt=8</a>
<b>Nearpod</b> 	<p>The Nearpod platform enables teachers to use their iPads to manage content on students' iPads, iPhones or iPods. It combines presentation, collaboration, and real-time assessment tools into one integrated solution.</p> <p>Before You Start Nearpod is a synchronous solution for the use of iPads, iPods and iPhones in the classroom. To try Nearpod, you will need one iPad and at least one other device (iPad, iPhone, or iPod touch), both</p>	REDEFINITION	FREE	Collaboration	<a href="https://itunes.apple.com/ca/app/nearpod/id523540409?mt=8">https://itunes.apple.com/ca/app/nearpod/id523540409?mt=8</a>

	running Nearpod. All devices should be connected to the Internet.				
<b>Educreations</b> 	Educreations turns your iPad into a recordable whiteboard. Creating a great video tutorial is as simple as touching, tapping and talking. Explain a math formula... Create an animated lesson... Add commentary to your photos... Diagram a sports play...	REDEFINITION	FREE	Communication, Collaboration	<a href="https://itunes.apple.com/ca/app/educreations-interactive-whiteboard/id478617061?mt=8">https://itunes.apple.com/ca/app/educreations-interactive-whiteboard/id478617061?mt=8</a>
<b>iMovie</b> 	Make beautiful HD movies anywhere with iMovie, the fast and fun moviemaking app that puts everything you need to tell your story at your fingertips. Browse and play projects in the Marquee view. Create Hollywood-style trailers or sophisticated home movies in minutes.* And share your finished projects with the world - right from iMovie.	REDEFINITION	\$4.99	Communication, Collaboration	<a href="https://itunes.apple.com/ca/app/imovie/id377298193?mt=8">https://itunes.apple.com/ca/app/imovie/id377298193?mt=8</a>
<b>Google Drive</b> 	Google Drive is one safe place for all your stuff. Upload photos, videos, documents, and other files that are important to you, then access what you need wherever you go, on any device. Get going with up to 15GB of storage. Free.	SUBSTITUTION	FREE	Collaboration, File Sharing	<a href="https://itunes.apple.com/us/app/google-drive/id507874739?mt=8&amp;ign-mpt=uo%3D4">https://itunes.apple.com/us/app/google-drive/id507874739?mt=8&amp;ign-mpt=uo%3D4</a>
<b>SMART Bridgit</b> 	With the Bridgit app, you can collaborate effortlessly with local and remote meeting participants*. Use the app with your SMART Board interactive whiteboard or display to view content that is being presented and highlight or annotate over that content. You can create or join a meeting on your iPad with either a wi-fi or cellular network connection.	REDEFINITION	FREE	Collaboration	<a href="https://itunes.apple.com/ca/app/bridgit/id433502122?mt=8">https://itunes.apple.com/ca/app/bridgit/id433502122?mt=8</a>
<b>ShowMe Interactive Whiteboard</b>	Turn your iPad into your personal interactive whiteboard!	REDEFINITION	FREE	Communication	<a href="https://itunes.apple.com/us/app/show-me-interactive-">https://itunes.apple.com/us/app/show-me-interactive-</a>


	ShowMe allows you to record voice-over whiteboard tutorials and share them online. It's an amazingly simple app that anyone can use, no matter how young or old!				<a href="https://itunes.apple.com/whiteboard/id445066279?mt=8">whiteboard/id445066279?mt=8</a>
<b>Prezi</b> 	Create, edit, present, and share your prezis anywhere with simple, intuitive multi touch gestures. Drag to pan and pinch to zoom in or out of topics, just like you do in any map apps. Revise and retouch your prezis, correct typos and adjust your presentation on-the-fly. Prezi for iPad is the perfect companion to your Prezi experience.	REDEFINITION	FREE	Communication, Presentation	<a href="https://itunes.apple.com/ca/app/prezi-for-ipad/id407759942?mt=8">https://itunes.apple.com/ca/app/prezi-for-ipad/id407759942?mt=8</a>
<b>Dropbox</b> 	Dropbox lets you bring all your photos, docs, and videos anywhere and share them easily. Access any file you save to your Dropbox from all your computers, iPhone, iPad and even the Dropbox website!	SUBSTITUTION	FREE	Collaboration, Storage	<a href="https://itunes.apple.com/en/app/dropbox/id327630330?mt=8">https://itunes.apple.com/en/app/dropbox/id327630330?mt=8</a>

## Graphing Apps


App Name	Description	SAMR	Cost	Topic	Link
<b>TI-Nspire CAS</b> 	Texas Instruments, the No. 1 recommended brand in graphing calculators, now offers its most powerful handheld technology in an all-in-one Computer Algebra System (CAS) app for iPad that makes teaching and learning math more engaging, meaningful and ... fun!	SUBSTITUTION	\$29.99	Graphing, Computer Algebra System, Geometry	<a href="https://itunes.apple.com/ca/app/ti-nspire-cas/id545351700?mt=8">https://itunes.apple.com/ca/app/ti-nspire-cas/id545351700?mt=8</a>
<b>FluidMath</b>	At <a href="http://www.fluidmath.net">http://www.fluidmath.net</a> webFluidMat	MODIFICATION	FREE	Graphing	<a href="https://itunes.apple.com/ca/app/fluidma">https://itunes.apple.com/ca/app/fluidma</a>

	<p>It brings handwritten math, computation, and graphing to users of iPads, Macs, Microsoft Windows, Tablet PCs and Interactive Whiteboards through a web</p>				<a href="https://itunes.apple.com/ca/app/sketch2graph/id580757471?mt=8">thfree/id594266234?mt=8</a>
	<p>Sketch2Graph is an educational math app. Use it to learn more about the relationship between the graphical and algebraic representation of math expressions. In most graphing apps you provide a math expression and get a graph. With Sketch2Graph it is the opposite-- you draw a graph and get back math that represents what you drew.</p>	MODIFICATION	FREE	Graphing Tool	<a href="https://itunes.apple.com/ca/app/sketch2graph/id580757471?mt=8">https://itunes.apple.com/ca/app/sketch2graph/id580757471?mt=8</a>
	<p>Explore math with Desmos! Graph functions, evaluate equations, explore transformations, plot points, and more - for free!</p>	AUGMENTATION	FREE	Graphing	<a href="https://itunes.apple.com/ca/app/desmos-graphing-calculator/id653517540?mt=8">https://itunes.apple.com/ca/app/desmos-graphing-calculator/id653517540?mt=8</a>
	<p>Quick Graph is the best graphic calculator available on the AppStore!</p> <p>It is a powerful, high quality, graphic calculator that takes full advantage of the multitouch display and the powerful</p>	AUGMENTATION	FREE	Graphing	<a href="https://itunes.apple.com/ca/app/quick-graph-your-scientific/id292412367?mt=8">https://itunes.apple.com/ca/app/quick-graph-your-scientific/id292412367?mt=8</a>




## Calculator Apps




App Name	Description	SAMR	Cost	Topic	Link
<b>Myscript Calculator</b> 	With MyScript© Calculator, perform mathematical operations naturally using your handwriting.	AUGMENTATION	FREE	Calculator	<a href="https://itunes.apple.com/ca/app/myscript-calculator/id578979413?mt=8">https://itunes.apple.com/ca/app/myscript-calculator/id578979413?mt=8</a>

## Algebra Apps


App Name	Description	SAMR	Cost	Topic	Link
<b>Algebra Touch</b> 	Have you forgotten most of your algebra? Algebra Touch will refresh your skills using touch-based techniques built from the ground up for your iPhone/iPad/iPod Touch.	MODIFICATION	\$2.99	Practice, BEDMAS, Algebra, Equations	<a href="https://itunes.apple.com/ca/app/algebra-touch/id384354262?mt=8">https://itunes.apple.com/ca/app/algebra-touch/id384354262?mt=8</a>





## Note taking and Mind Mapping Apps

App Name	Description	SAMR	Cost	Topic	Link
<b>SMART Notebook</b> 	<p>The SMART Notebook app for iPad is a light version of SMART Notebook collaborative learning software. Using this app, you can create basic multimedia files and complete SMART Notebook lesson activities. You can use the app for individual and collaborative learning with an iPad, and you can use SMART Notebook software with a SMART Board</p>	SUBSTITUTION	\$6.99	Note taking, Collaboration	<a href="https://itunes.apple.com/ca/app/smart-notebook-app-for-ipad/id554245373?mt=8">https://itunes.apple.com/ca/app/smart-notebook-app-for-ipad/id554245373?mt=8</a>
<b>Inspiration Lite</b> 	<p>Work with up to five diagrams to create maps, edit and stylize content, transform diagrams to outlines, and preview templates. ---&gt; For unlimited diagrams that you can export to Inspiration 9.1, use with other apps, and share with others: upgrade to Inspiration Maps, the visual thinking and learning application for the iPad. Students build their knowledge by creating diagrams, maps and organizers that help them brainstorm, plan, organize and build thinking skills. Tap to transform visual work into outlines that export for writing. Use Inspiration Maps to:</p>	REDEFINITION	FREE	Mind Mapping	<a href="https://itunes.apple.com/ca/app/inspiration-maps-lite/id510031612?mt=8">https://itunes.apple.com/ca/app/inspiration-maps-lite/id510031612?mt=8</a>
<b>ShowMe Interactive Whiteboard</b> 	<p>Turn your iPad into your personal interactive whiteboard!</p> <p>ShowMe allows you to record voice-over whiteboard tutorials and share them online. It's an amazingly simple app that anyone can use, no matter how young or old!</p>	AUGMENTATION	FREE	Communication	<a href="https://itunes.apple.com/us/app/show-me-interactive-whiteboard/id445066279?mt=8">https://itunes.apple.com/us/app/show-me-interactive-whiteboard/id445066279?mt=8</a>
<b>Prezi</b>	<p>Create, edit, present, and share your prezis anywhere with simple, intuitive multi touch gestures. Drag to pan and</p>	REDEFINITION	FREE	Communication, Presentation	<a href="https://itunes.apple.com/ca/app/prezi-for-ipad/id407759942?mt=8">https://itunes.apple.com/ca/app/prezi-for-ipad/id407759942?mt=8</a>





	pinch to zoom in or out of topics, just like you do in any map apps. Revise and retouch your prezis, correct typos and adjust your presentation on-the-fly. Prezi for iPad is the perfect companion to your Prezi experience.				
<b>MindMeister</b> 	*** MindMeister is the companion app of the #1 collaborative mind mapping site MindMeister.com ***	REDEFINITION	FREE	Mind Mapping, Collaboration	<a href="https://itunes.apple.com/ca/app/mind-meister-mind-mapping/id381073026?mt=8">https://itunes.apple.com/ca/app/mind-meister-mind-mapping/id381073026?mt=8</a>
<b>Popplet Lite</b> 	Great for work. Great for school. Popplet is a platform for your ideas. Popplet's super simple interface allows you to move at the speed of your thoughts. With Popplet you can capture your ideas and sort them visually in realtime. Quickly and easily!	REDEFINITION	FREE	Mind Mapping, Collaboration	<a href="https://itunes.apple.com/ca/app/popplet-lite/id364738549?mt=8">https://itunes.apple.com/ca/app/popplet-lite/id364738549?mt=8</a>



### Manipulatives and Math Tools

App Name	Description	SAMR	Cost	Topic	Link
<b>Clinometer HD</b> 	With this tool, the slope can be measured by all edges of the device in every direction. When the device is put flat on the table a bubble view will fade in.	AUGMENTATION	FREE	Manipulative, Clinometer	<a href="https://itunes.apple.com/ca/app/clinometer-hd-bubble-level/id364877623?mt=8">https://itunes.apple.com/ca/app/clinometer-hd-bubble-level/id364877623?mt=8</a>
<b>Geoboard</b>	The Geoboard is a tool for exploring a variety of mathematical topics introduced in the elementary and middle grades. Learners stretch bands around pegs to form line segments and polygons and	SUBSTITUTION	FREE	Manipulative, Geoboard	<a href="https://itunes.apple.com/ca/app/geoboard-by-math-learning/id519896952?mt=8">https://itunes.apple.com/ca/app/geoboard-by-math-learning/id519896952?mt=8</a>




	<p>make discoveries about perimeter, area, angles, congruence, fractions, and more.</p>				
<p><b>Easy Measure</b></p> 	<p>EasyMeasure shows you the distance to objects seen through the camera lens of your iPhone or iPad. Simply aim your iPhone/iPad to any object in your surroundings, and EasyMeasure displays the distance towards that object on top of the camera image. With its amazing 3D camera overlay grid, using EasyMeasure is very intuitive and easy!</p>	<p>AUGMENTATION</p>	<p>FREE</p>	<p>Manipulative, Metre Stick</p>	<p><a href="https://itunes.apple.com/ca/app/easymasure-measure-your-camera/id349530105?mt=8">https://itunes.apple.com/ca/app/easymasure-measure-your-camera/id349530105?mt=8</a></p>
<p><b>Angle Meter (FREE)</b></p> 	<p>Angle Meter is an accurate angle (from the surface of the earth) measurement tool.</p>	<p>AUGMENTATION</p>	<p>FREE</p>	<p>Manipulative, Level</p>	<p><a href="https://itunes.apple.com/ca/app/angle-meter-free/id436775826?mt=8">https://itunes.apple.com/ca/app/angle-meter-free/id436775826?mt=8</a></p>
<p><b>Angle Meter HD Lite</b></p> 	<p>Do you need to measure angles with your device?</p>	<p>AUGMENTATION</p>	<p>FREE</p>	<p>Manipulate, Level</p>	<p><a href="https://itunes.apple.com/ca/app/angle-meter-hd-lite/id443346113?mt=8">https://itunes.apple.com/ca/app/angle-meter-hd-lite/id443346113?mt=8</a></p>
<p><b>Virtual Manipulatives!</b></p>	<p>I have provided a virtual set of fraction bars on <a href="http://www.abcya.com">www.abcya.com</a> for several years. Many teachers have contacted me about creating a similar application for the iPad. Here it is! I offer this app for free because virtual manipulatives alone do not provide meaning for learners; they require a</p>	<p>SUBSTITUTION</p>	<p>FREE</p>	<p>Manipulative, fraction bars</p>	<p><a href="https://itunes.apple.com/ca/app/virtual-manipulatives/id471341079?mt=8">https://itunes.apple.com/ca/app/virtual-manipulatives/id471341079?mt=8</a></p>




	<p>teacher to guide meaning and connections.</p>				
<p><b>Algebra Tiles</b></p> 	<p>Virtual manipulative algebra tiles for hands-on exploration of algebraic concepts.</p>	AUGMENTATION	\$0.99	Manipulative	<a href="https://itunes.apple.com/ca/app/algebra-tiles/id568896224?mt=8">https://itunes.apple.com/ca/app/algebra-tiles/id568896224?mt=8</a>
<p><b>Solving Equations</b></p> 	<p>Everything you need for teaching and learning: (1) Narrated lesson (2) Practice questions (3) Virtual manipulative (4) Challenging game</p>	AUGMENTATION	\$0.99	Manipulative	<a href="https://itunes.apple.com/ca/app/solving-equations/id522498600?mt=8">https://itunes.apple.com/ca/app/solving-equations/id522498600?mt=8</a>
<p><b>Teaching Table Lite</b></p> 	<p>Use our math manipulatives to create customized and dynamic lessons.</p> <p>Teaching Table Lite provides educators and parents with interactive manipulatives to teach math concepts and guide</p>	AUGMENTATION	FREE	Manipulative	<a href="https://itunes.apple.com/ca/app/teaching-table-lite/id562246923?mt=8">https://itunes.apple.com/ca/app/teaching-table-lite/id562246923?mt=8</a>
<p><b>5 Dice: Order of Operations Game</b></p>	<p>Two Player Bluetooth Math Game! You can now use two devices and play against your classmates or parents.</p> <p>A math game intended for upper elementary and middle school students</p>	MODIFICATION	FREE	Game	<a href="https://itunes.apple.com/ca/app/5-dice-order-operations-game/id572774867?mt=8">https://itunes.apple.com/ca/app/5-dice-order-operations-game/id572774867?mt=8</a>

	<p>that helps students enjoy practicing their</p>				
<p><b>Geometer's Sketchpad</b></p> 	<p>Drag, manipulate and animate visual mathematics to develop and generalize your understanding of fundamental concepts across elementary math, geometry, algebra, trigonometry, calculus, and beyond. Based on the award-winning software The Geometer's Sketchpad®, the Sketchpad Explorer app allows you to interact with, and investigate, any document created in Sketchpad. With a simple, powerful multitouch interface, Sketchpad Explorer puts mathematical comprehension at your fingertips.</p>	<p>SUBSTITUTION</p>	<p>FREE</p>	<p>GSP</p>	<p><a href="https://itunes.apple.com/ca/app/sketchpad-explorer/id452811793?mt=8">https://itunes.apple.com/ca/app/sketchpad-explorer/id452811793?mt=8</a></p>

Miscellaneous Apps

App Name	Description	SAMR	Cost	Topic	Link
<b>NASA Visualization Explorer</b> 	<p>NASA SCIENCE: REVEALED! This is the NASA Visualization Explorer, the coolest way to get stories about advanced space-based research delivered right to your iPad. A direct connection to NASA's extraordinary fleet of research spacecraft, this app presents cutting edge research stories in an engaging and exciting format. See the Earth as you've never seen it before; travel to places otherwise unavailable to even the most intrepid explorers! Download it now, tap into the power of NASA's cutting-edge research today and check for new stories every week!</p>	REDEFINITION	FREE	NASA Space	<a href="https://itunes.apple.com/ca/app/nasa-visualization-explorer/id448700202?mt=8">https://itunes.apple.com/ca/app/nasa-visualization-explorer/id448700202?mt=8</a>
<b>Chrome</b> 	<p>Browse fast with Chrome, now available on your iPhone, iPod touch and iPad. Sign in to sync your personalized Chrome experience from your computer, and bring it with you anywhere you go.</p>	AUGMENTATION	FREE	Browser	<a href="https://itunes.apple.com/ca/app/chrome/id535886823?mt=8">https://itunes.apple.com/ca/app/chrome/id535886823?mt=8</a>
<b>QRReader</b> 	<p>Fast and effective. App opens instantly in real-time scanning mode.</p>	AUGMENTATION	FREE	QR Reader	<a href="https://itunes.apple.com/ca/app/qr-reader-for-ipad/id426170776?mt=8">https://itunes.apple.com/ca/app/qr-reader-for-ipad/id426170776?mt=8</a>

**Assessment**

<b>App Name</b>	<b>Description</b>	<b>SAMR</b>	<b>Cost</b>	<b>Topic</b>	<b>Link</b>
 <p><b>eClicker Audience</b></p>	<p>Anyone who sits through presentations or lectures knows a little interactivity makes everything more memorable. And more fun. Hence: eClicker Audience. The companion app to eClicker Presenter, eClicker Audience lets you see and answer questions a teacher, speaker or moderator sends to your iOS device. The app is free and available in the App</p>	AUGMENTATION	FREE	Assessment	<a href="https://itunes.apple.com/us/app/eclicker-audience/id520556451?mt=8">https://itunes.apple.com/us/app/eclicker-audience/id520556451?mt=8</a>