



P2 / GET CREATIVE

Apple has apps a lessons to guide you and your students through creative creations.



P3 / APP SAFETY

Which Apps Are Safe for Kids?
Three Tools That Read the Fine Print for You



P3 / STEM CALENDAR

See what is going on in the world of STEM education.



P3 / MULTIMEDIA MATH

Math shouldn't be odd problems, worksheets, and arithmetic. There's another way.

District 75 STEM Connect



LEGO in D75

LEGO MATH

It has been a month full of LEGO-rific events. Many educators were inspired through the [LEGO math PD](#) about rethinking math with LEGO for everything from basic numeracy to multiplying fractions. Check out some [LEGO math videos](#) made by teachers.

LEGO LEAGUE

We also held our 3rd Annual District 75 LEGO League at the

NY Hall of Science on March 21st. Many student builders, scientists, and astronauts were able to show off their construction and coding skills through this year's Mission Moon. Photos for each of the schools attending will be made available soon, but you can still go back and watch the live stream of the event on the [D75 STEM YouTube Channel](#).

LEGO LEARNING

LEGO just launched the new [SPIKE Prime](#) learning tool to help spark student interest in STEAM learning that includes an LED hub, software, and unit plans across 4 areas. We hope it will help some of our schools jump to the next level of LEGO competition. You can find more ways to use [LEGO for learning](#) too.

Everyone Can Create

Apple first announced its Everyone Can Create curriculum at last year's [March education event](#). The course was made available in October, covering 4 areas: [photography](#), [music](#), [video production](#), and [drawing](#). They make use of the new iPad, Apple Pencil, and other creativity apps like GarageBand, iMovie, and Clips.

The goal is integrating creativity into lessons and assignments that help students develop new skills and new ways to express themselves throughout their school day. In total, there are 300 lesson plan ideas across media, projects and subjects. Not all are focused on the creative arts, to be clear. For

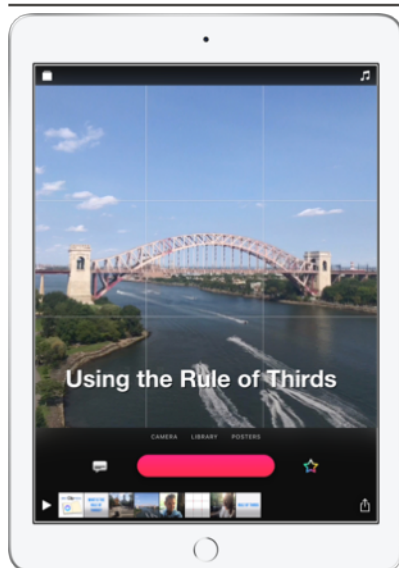
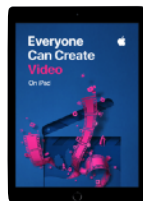
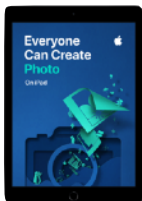
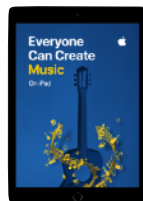
example, a math teacher can use the iPad camera's burst mode to capture the arc of a basketball toss to measure its parabola. Students can also use the camera to learn about fractals or use Apple Pencils and apps to learn about symmetry.

The student guides are accompanied by a [Teacher Guide](#) with tips for lesson planning and integrating the material into their existing class program. The guide includes 300 ideas on how you can apply the projects in five curricular areas: math, literacy and literature, history and social studies, science, and coding. They've developed the



ideas to emphasize learning objectives that to deepen student learning: real-world engagement, communication and creation, teamwork, critical thinking, and personalized learning. You'll also find rubrics you can use as guidelines for evaluating the projects in each medium.

These can be in addition to the nearly 200,000 education apps are available in the App Store today including apps like Apple's Classroom and Schoolwork that give teachers the ability to create and share assignments, collaborate and view student progress, and tailor instructions to individual student needs, all in one place.



App of the Month

[Apple's Clips](#) is a free fun video, text, and graphics app that is kind of like iMovie's cool younger sister. There are several great ways to use it in the classroom for creative learning.

- [Topic Explanation](#): Use it to explain a complex idea to students
- [Give Feedback](#): Photos of student work with audio/video feedback
- [Historical Photos](#): Pan and zoom around an image while explaining it.
- [Process Steps](#): Go through the steps in a science experiment or baking a cake or any other task.
- [Six Word Story](#): Put it together with the help of this [guide](#).
- [3-Act Math](#): Turn math concepts into a story of discovery.

Check out the [Clips support guide](#) for a full walk-through





Safe Apps?

A recent [New York Times investigation](#) found that many companies receive such precise, extensive data on their users that they—and anyone else they share this information with—could easily identify a single individual and pinpoint their location. That user data is often sold to or shared with other companies, such as advertisers who have a vested interest in behavioral data, and it's not as anonymous as people think. G Suite and Microsoft protect student data and are FERPA and COPPA compliant for their main services, but about anything else? Below are three resources you could use when considering whether an app is appropriate for students.

COMMON SENSE

[Common Sense Education](#) maintains a [privacy database](#) that evaluates edtech tools on whether they are safe for use in schools.

The privacy evaluations are broken down into [three tiers](#): use responsibly, use with caution, and not recommended.

Are Education Apps Safe to Use?

Common Sense has evaluated privacy policies for 297 education apps. Less than a third earned the nonprofit's highest rating.



*The evaluations are based on state and federal privacy regulations and industry best practices and determined by the privacy team at Common Sense.

APP CENSUS

Another tool—though not specific to edtech—is [AppCensus](#). It analyzes smartphone apps and outlines the personally identifiable information (PII) the apps extract and share with third parties. It issues badges if an app falls into any of these three categories: “Transmits sensitive data,” “uses sensitive permissions” and has “no privacy policy.” AppCensus is only able to analyze Android apps.

EXODUS

Another privacy evaluation tool, created and maintained by [Exodus](#) is also limited to Android apps. Exodus publicizes how many trackers and permissions are found in each app. In each report, Exodus identifies where the trackers are



SPECIAL EVENTS

There are a number of big events coming up soon to watch out for.

Digital Inclusion & Accessibility Summit (May 23rd-Harlem Renaissance Training Center) A full day with a number of vendors demoing how their platforms help make learning accessible and inclusive to all learners. [Register Here](#)

NYCSchools Tech Partner Certification (May 3rd) The summer partner sessions are now up for training with Google, Apple, and more. [Register](#) before May 3rd.

CS Teachers Conference (May 4 - John Jay College) a full-day conference for K-12 NYC CS teachers featuring presentations by NYC CS teachers and school teams with keynote speaker Chris Emdin.

District 75 STEM Calendar

April 12th
[Integrating iPads](#)

April 12th
[Kitchen Botany](#)

April 17th
[Access Abilities @ Apple](#)

April 17th, 18th, 17th, or 29th
[SPOC Meetups \(by borough\)](#)

April 17th
[Apple After Hours](#)

April 22nd - 24th
[iZone/iLearn Spring Institute](#)

iLearnNYC

April 29th
[Deploying iOS & Deploying Mac](#)

April 30th
[SMARTBoard for Art Instruction](#)

May 3rd
[Tech Partner Cert. Application](#)

May 8th
[Microsoft Education Summit](#)

May 9th
[Engaging ELL With iPads](#)

May 13th- 17th
[District 75 STEM Week Events](#)

May 17th
[City Math: Trains, Ferries, & Buses](#)

May 22nd
[SMARTBoard Refresher](#)

May 23rd
[Digital Access & Inclusion Summit](#)



coming from.

Multimedia Math

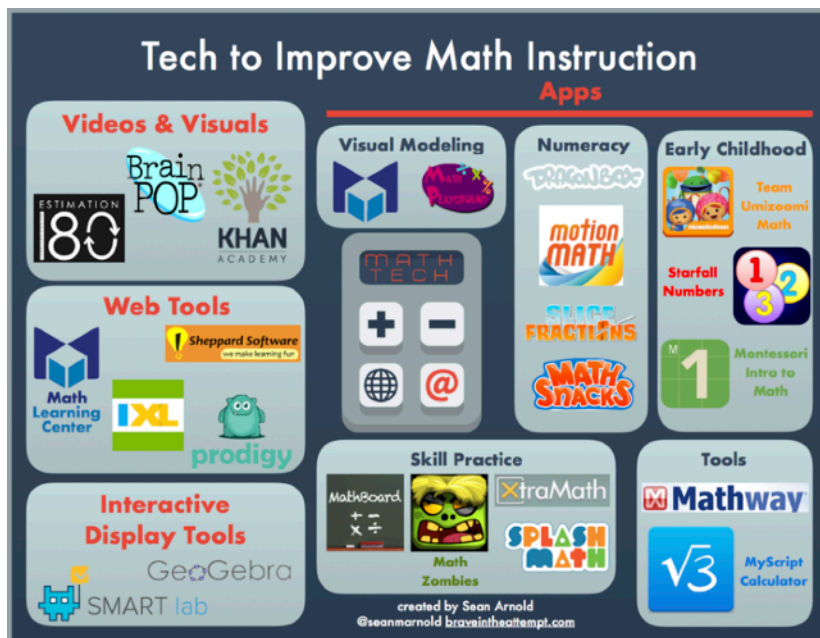
Too often math is taught as a series of memorizations where even math games are often re-packaged drill-and-kill exercises. Life (just like great movies) is filled with open-ended journeys with open-ended questions. Students should learn not only the skills of arithmetic but also how to ask better questions to determine what is needed.

One way to open up math instruction is to make it a realistic problem or story. That framework of open storytelling is the basis of Dan Meyer's [3-act math](#). Using videos, images, and applications Meyer introduces students to a central conflict, guides them to overcome obstacles, and allows students to resolve the conflict while setting up an extension/sequel.

You can find examples at [G-Fletchy](#), [Weebly](#), or on Dan Meyer's [spreadsheet](#). Find similar estimations at [Estimation 180](#), graphing activities at [Desmos](#), lessons and games at [Math for Love](#), and multimedia math stories at [Math Snacks](#).

VISUALS & VIDEOS

- [Math Learning Center](#) – visual modeling apps



- [Thinking Blocks](#) – modeling apps (also
- [Estimation 180](#) – estimation multimedia
- [Flocabulary Math](#)
- [BrainPOP Math](#)
- [Math Snacks](#) – videos paired with games
- [Khan Academy](#) – lesson walkthroughs
- [TedEd](#) – math problems and inspiration
- [Crash Course](#) – it includes economics and other advanced instruction
- [Visual Patterns](#) – videos and images for daily estimation
- [PBL Curriculum Maps](#) – 200 visual patterns
- [YouCubed](#) – organization that

applies growth mindset to math

WEB TOOLS & GAMES

- [Greg Tang Math](#) – math game
- [Prodigy](#) – math adventure game

- [Sheppard Software](#) – early learning games
- [Starfall Math](#) – early learning games
- [Desmos](#) – 3-act math geared lessons and tutorials
- [IXL](#) – review math skills
- [Matific](#) – pay site with a trial
- [Get the Math](#) – see and play with algebra in the real world
- [XtraMath](#) – practice arithmetic
- [ABCya](#) – early childhood math games
- [Quadrant Defender](#) – graphing math games

TABLET APPS

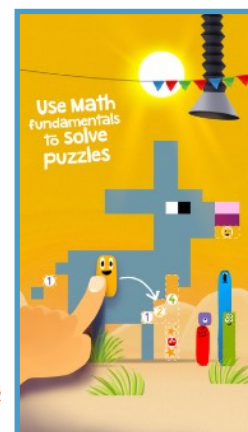
VISUAL MODELING

- [Math Learning Center](#) – 10 apps
- [Thinking Blocks](#) – 4 apps
- [OhNo Fractions](#)

NUMERICAL

UNDERSTANDING

- [DragonBox Math](#) – 5 math games
- [MotionMath Games](#)





– 9 apps

- [Teachley](#) – 4 apps
- [Slice Fractions](#) – fraction adventure game
- [MathSnacks](#) - 3 games
- [Prodigy](#)
- [Pick a Path](#) – math puzzle maze

EARLY CHILDHOOD

- A [Team Umizoomi Math](#)
- A [Starfall Numbers](#)
- [Endless 123](#) – number recognition, sequences, etc.
- [Montessori Intro to Math](#) – number sense activities

“Mathematics is not about numbers, equations, computations, or algorithms: it is about understanding.

- William Paul Thurston

- [Little Digits](#) – finger counting
- [Greater Gator](#)– number comparison game
- [Montessori Counting Board](#) – counting board
- [Montessori Geometry](#) – learn shapes
- [Elmo Loves 123s](#) – counting, videos, puzzles, and games
- [Todo Telling Time](#) – clocks and 6 mini games for time and date
- [Jungle Time](#) – learn time with animal face clocks
- [Shapes Toddler Preschool](#) – basic shape review and games

SKILL PRACTICE

- [SplashMath](#) – grade level math
- [MathBoard](#) – arithmetic
- [XtraMath](#) – arithmetic practice
- [Math Zombies](#) – destroy zombies with math facts
- [Measure This](#)
- [Counting Money](#) – different money skill exercises
- [Quick Math](#)
- [Counting Bills and Coins](#) – count, match, & make change
- [Pizza Fractions](#)

TOOLS

District 75 STEM Next Issue

APP/SKILL OF THE MONTH

We'll give an overview of an app and teach you about a basic tech skill.

STEM WEEK

Student adventures in STEM Activities

- [Mathway](#) – problem solver app
- [MyScript Calculator](#) – solve written equations
- [EquatIQ](#)–make math equations
- [Free Graphing Calculator](#)
- [Mathspace](#)– digital textbooks
- Math Ref (\$2.99)

INTERACTIVE DISPLAY TOOLS

Interactive displays offer a variety of interactive widgets (dice, fractions, shapes, number lines, etc.) and lesson creation tools like [SMART Lab](#), [Activity Builder](#), [Classflow](#) and [SMART Notebook Online](#).

