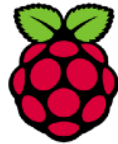




## P2 / PEAR DECK

How can we best impact student needs?



## P3 / TRAINING RESOURCES

Check out some new opportunities for training that we haven't shared before.



## P3 / STEM CALENDAR

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



## P4 / ASSESSMENTS

You have access to a number of resources, but did you know it?.

# District 75 STEM Connect



## eSports Is Serious In Schools

We have a number of PDs focused on [game-based learning](#), but now with the growth of eSports is now prime time. When most major universities now have eSports teams and major sports franchises in the NBA and other professional leagues also have eSports teams, it is deserving of real attention. If you want more insight, check out the [broader post on school gaming](#).

**Games are big business.** Yes, the eSports champions are making millions and [more people have and will be watching major eSports tournaments](#)

[than the Super Bowl](#). So, yes, the players and creators are doing well, but there is a whole surrounding industry including marketers, coaches, analysts, event organizers, journalists, and more who benefit as well. Just sharing on [Twitch](#) is now a major revenue stream.

**Play is serious.** Or at least it should be taken seriously both as a valuable learning resource, [according to research](#), and as a serious sport. Like with any sport good strategy, coaching, practice, and (believe it or not) fitness make a difference in the elite world of

gamedom. But there are organizations, like [NASEE](#), that can help with that process. Students should only be playing the similarly skilled students. And coaching these types of students will likely need to happen differently than other types of coaching.

**Gaming business opportunities can even trickle down to teachers.** Sure there are a variety of opportunities and coaching roles for educators in eSports and GBL, but it also refers to [a specific contest from Unreal where educators can get \\$25,000+](#).

## Skill of the Month

### Microsoft Magic

Differentiation is giving students material sorted by skill level and interest to maximize academic growth. Adjusting skill level puts the student in the Zone of Proximity — that place where they have enough background knowledge to do the work but still have to struggle. There are ed-tech tools that can help teachers more easily take those steps.

#### INCLUSIVITY

The [accessibility work they're doing](#) that we already shared about is worth the view alone, but they offer more too even if you're definitely not a Windows person. This became clear as [Leslie Fisher](#) used Office 365 in the Chrome Browser on her MacBook. For example, OneNote now has multi-lingual live captions. That can be a huge game-changer for multi-lingual learners and

struggling readers trying to take notes. Check out [those details and more](#).

#### POWERPOINT

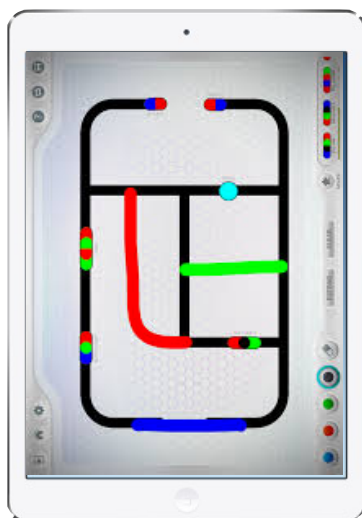
We love Apple's Keynote because it is pretty looking for presentations (but some accessibility stuff needs attention), and we like Google Slides for collaborating. And for a long time PowerPoint was still a 4:3 antique in a 16:9 world. But we learned that the captions and translations for in-person PowerPoints are will be available on screencast ones too. Yes, the web version added built-in search, but the becomes more powerful with [Design Ideas](#) that will automatically reorganize your presentation and make it look good similar to the way that works with Google's Explore button. In fact, if you start listing dates, it will automatically help create a timeline. Also, the [morph transition](#) is pretty

cool (though similar to Apple's Magic Move).

#### EXCEL & FORMS

Okay, maybe expecting others to enjoy a good VLOOKUP function like I do is too much, but did you know that you can [snap a photo of a paper spreadsheet and Excel will auto-magically import it](#) into the appropriate cells in a spreadsheet document. What is this wizardry? If you want more spreadsheet/forms nerd-dom, you can create equations easily (without an add-on) and then have Forms [create other similar questions and populate a full quiz](#).

**Microsoft is made for math.** Yes, there are the [math tools built into OneNote that will create and even solve your equations](#) and [auto-generate quizzes](#), but apparently you can do all that in [Microsoft Forms](#) as well. Apart from that though they have a [Math Solver app](#) to help you figure it all out.



## App of the Month

Ozobot has expanded their repertoire and become easier to manage. The tiny [Ozobots](#) are simple and can be 'programmed' just by drawing with some markers on paper. There are also more advanced skills that students can master by programming in [Ozoblockly](#), their block-based coding software, that allows students to take full advantage of the [Ozobot Evo's](#) proximity sensors. None of that is new, but there will soon be a fully functioning Ozobot classroom that will help educators manage student use and performance and with the bots. The new charger cases are much easier to use also. They sell premade [color-code stickers](#) if drawing is too much of a challenge.

Check out Ozobot's full [lesson library](#) for more ways information to integrate it.





## Hands-On MegaShare

Two members of the STEM team attended [FETC](#) (Future of Education Technology Conference) and there were several opportunities to discover new tools for learning. Here are a few.

### Bots

Robots empower [hands-on learning](#) for students to learn actively in ways that challenge them to solve real problems rather than with contrived word problems or worksheets that lack rigor and incentive. Also they fact that errors are immediately discernible (i.e. because the robot falls off the table or runs into a wall) makes it great for students struggling



[programmable and rebuildable mBots](#) are their main hardware, but they have several others. The [cute mTiny](#) programmable robot with a tap pen controller and their [neuron programmable blocks](#) are great for early learners. They also have an LED robot, [Codey Rocky](#) and an [Airblock drone](#). Check out their variety of [education solutions](#).

### MATATALAB

We have discussed early childhood robots like [Kibo](#) before which uses wooden blocks to code a bot with various sensors. [Matatalab](#) is similar, but it has a tower that scans your coding puzzle pieces to speak to a nearby robot, but it is

intended for a variety of curriculum areas including music and art.

### ROBOLINK

[Robolink](#) makes a few different constructible robots and drones, but their new [Zumi](#) car robot learns through drawing powered AI to make decisions just like a robotic car would.

### ROBOKIND

In the past we've seen the Nao robot used for students with autism, but Milo from [Robokind](#) is much more personable. It's designed specifically to support students with autism.

### KAIS CLAN

Do you want a variety of coding languages? Do you want expansion capabilities with attachable sensors and connection to the internet of



**Knowledge is actively constructed by the student, not passively absorbed from textbooks and lectures.**

to understand certain concepts. If you want to learn more deeply about options for classroom robotics, you can browse the [Hands-On CS](#) page.

### BIRD BRAIN TECHNOLOGIES

Bird Brain technologies, the maker of the [Finch bot](#), now has their [FinchBot 2.0](#) coming with an included MicroBit, a spot for marker drawing, and more improvements. They also have frequent [Bots & Bevs](#) events where you can learn

to use them in a casual setting or they will show you how to hold your own.

### MAKEBLOCK

Their

## District 75 STEM Calendar

Jan. 27<sup>th</sup> & 29<sup>th</sup> & Feb. 5<sup>th</sup>, 7<sup>th</sup> & 12<sup>th</sup>  
[Dig-In Camps](#)

Jan. 23<sup>rd</sup>, 24<sup>th</sup>, 31<sup>st</sup> & Feb. 11<sup>th</sup>  
[SPOC Meet-Ups](#)

January 24<sup>th</sup>  
[Robots in the Classroom](#)

January 28<sup>th</sup>  
[Speech & Communication in Math \\*](#)

January 28<sup>th</sup>  
[Microsoft Teams Education Roadshow](#)

January 29<sup>th</sup>  
[littleBits Design Challenge](#)

January 30<sup>th</sup>  
[Digital Storytelling For All \\*](#)

January 30<sup>th</sup>  
[Cognitively Guided Math Instruction](#)

January 30<sup>th</sup>  
[GEG Meetup](#)

February 5<sup>th</sup>  
[SMART & Promethean Interactives \\*](#)

February 6<sup>th</sup>  
[Hydroponics & Aquaponics \\*](#)

February 10<sup>th</sup>  
[Engaging STEM Investigations](#)

February 11<sup>th</sup>  
[SMARTBoard in Math \\*](#)

February 11<sup>th</sup>  
[JARs for Math Classroom Teams \\*](#)

February 12<sup>th</sup>  
[SPOC MDM Workshop](#)

February 12<sup>th</sup>  
[Apple After Hours](#)

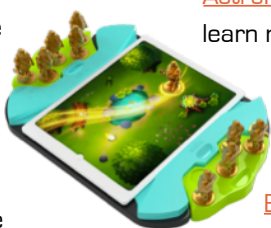
February 26<sup>th</sup>  
[Alternatives to Boardmaker \\*](#)



things? Do you want game-based learning and adventure mats? How about augmented (AR) and virtual reality (VR) capabilities? Sure, but how many robots do I need for all this, you ask? Well, apparently just [Kai's Clan](#) to do EVERYTHING! Now whether that's awesome or overwhelming is up to you, but it's available.

## Manipulatives

There are a number of great hands-on digital manipulative beyond robots that are great for learning too. You can find a more complete list of [early childhood digital manipulatives](#) for more information. You can find several of these tools available through [TechTerra Education](#).



## PLAYSHIFU

[PlayShifu](#) has several options from an AR Globe, a counting/arithmetic game, animals, travel, and more. several tactile toys that interact with a tablet.

## MARBOTIC

[Marbotic](#) partners with Sesame Street and uses number and shape manipulatives that interact with the iPad.

## ASTROREALITY

[AstroReality](#) offers AR planets to learn more about the solar system. Play time can turn to learning time.

## BLUEBEE PALS

[Bluebee pals](#) turns stuffed animals into communication partners to help train students in life skills.

## 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.

### TECHSHARE

Cool tech you probably haven't heard of.

## UNRULY SPLATS

[Unruly Splats](#) are programmable floor lights that can be used for physical learning activities. They both have resources and lessons available.

