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P2 / VIDEO CONTENT

Make the most of video resources with Flipgrid & EdPuzzle.



P3 / SPECIAL EVENT

Check out these many special events for students & teachers.



#### P3 / STEM CALENDAR

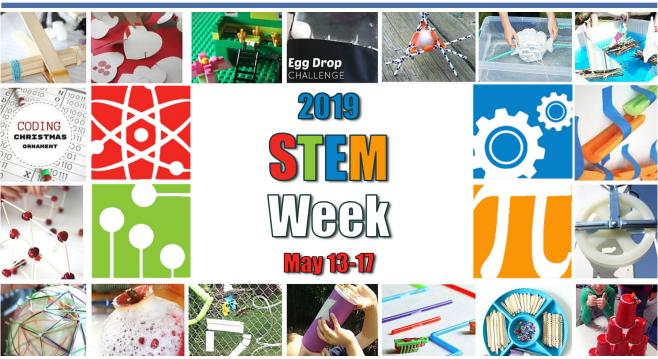
See what is going on in the world of STEM education.



P4/ EDTECH GIFTS

See tall the favorite EdTech resources we're sharing.

# District 75 STEMConnect



# STEM Week

The STEM Department continues to inspire hands-on learning with students through Makerspaces, game-design, school gardens, scientific inquiry, and more. Of course the STEM Fair is a culmination of the great work students are doing in schools, but we want to provide the means for ongoing exploration as well.

District 75 STEM Week invites schools to participate in a weeklong STEM Olympics event that celebrates the human spirit of exploration, discovery, and creativity. Schools can sign-up for one or all events. This year the events will include an Egg Drop Challenge, a Penny Boat Float, a Mini-Soap Box Derby, and Fermi Guess-timation Questions. There will also be a related Minecraft

Education Event for all participating schools and students. Sign up soon to make sure you'll have the resources to prepare with your students in advance.

You can explore other ways to engage in hands-on learning with your students in addition to other classroom challenges you can leads with your students.

# Skill of the Month

## **EFFECTIVE GAMING**

Play is critical for development and not just in humans. Mary Poppins realized it, and scientific

studies show that play increases brain activity and awareness even in animals. Digital games have often led to the biggest tech innovations, have quickly decreased the cost of technology to make it accessible. When you look at the HUD display in your car, medpacs, or surgical video and training technologies you can thank video games for making them possible. Sea Hero Quest and Project Evo are even games that are approved for treating Alzheimer's and ADHD respectively.

To be effective the games should not be simple formulaic puzzles, but should allow for personalization and abstract problem solving. It is the feeling of being pleasantly frustrated, which you find in quality games, that allow information to become neurochemically embedded [1, 2]. Also discussing or instructing

on empathy, culture, or literature before or after a game improves the learning of that skill throughout the game according to Values at Play.

Educational games shouldn't require a toll booth (learn then play) nor should they be like chocolate covered broccoli (unengaging learning in a shiny. packaged). The games must be integrated fully into instruction and allow for the autonomy and creativity to sustain learning. Look to the MIT Education Arcade for inspiration.

## **GAMIFICATION**

On the topic of fully integrating gaming into your classroom, we will begin to discuss gamification.

While game-based learning is teaching your class with games, gamification is turning the learning environment into the game itself. It helps prevent learning bottlenecks, because all players can aid each other This may include:

- Gamification Software-Some options include <u>Classcraft</u>, <u>Rezzly</u>, and <u>The Virtual Locker</u>.
- Gamify Homework-Use brief treasure hunt or quest-based assignments.
- Gamify Grading-Use experience points for grades or use GBL assessments like

Quizizz or Kahoot!

- Provide Choice/Modding
- Award Badges
- Include Easter Eggs (surprises)
- Integrate Video Games
- Make It Cooperative

If you're feeling especially ambitious you can attempt educational

LARPing. Aaron Vanek has successfully had his classes NATION STATES reenact ancient Egypt and other civilizations using sites like

NationStates and tools like Breakout

Edu. Use this gamification graphic as a reference. You can check into a complete overview of GBL.



App of the Month

Classcraft By using conventions typically found in games and applying them to the classroom, Classcraft allows

students to level up for being good learners, unlock real-life benefits as they progress, and work in teams to overcome common challenges.

Set it all up on <u>Classcraft</u> and use the app during class to update student data. It's linked to Google Classroom to make set up easy and get into quest-based learning.

Learn the basics with <u>Classcraft 101</u>, and look into further <u>tutorials</u> & <u>webinars</u>.

Connect with other Classcraft users on <u>Twitter</u>, <u>Facebook</u>, & the <u>Classcraft Blog</u>.

Find it on iOS & Android.

# Special Events

CS4ALL
Date: Jan. 5
Location: Teachers
College

CS4ALL is partnering with NYC Men Teach for the event Why Computer Science Matters in Communities of Color. It is an event for students.

teachers, and parents to explore coding and engage in meaningful conversations on how we can fight bias and positively impact the lives of students of color through CS education. You can see all the details, register, or contact Christy Crawford.

#### **STEM**

### Designing Urban Transportation Solutions for HS Teachers

Dates: Jan. 24 & Feb. 28

Explore the principles of art and automotive design while becoming immersed in the birth of a car. They'll kick off the design of their futuristic car prototype and explore branding, consumer trends, function, and market research. This workshop is facilitated by the National Inventors Hall of Fame and FCA car designers. Register by January 11th.

### Exploring Minecraft for Educators- Level II

Dates: Jan. 11, Feb. 12, Mar. 15

The institute will focus on game design utilizing Minecraft: Education Edition. Additionally teachers will engage in learning the more advanced features of



the program such as Redstone,
Command Blocks, and NonPlayer Characters (NPC).
The culminating portion of
this Professional Learning
Institute will be the
development of artifacts to be
shared during the best practices
session hosted at one of the
participating schools. Register by
January 4th.

#### **YOUTH CLIMATE SUMMIT**

Date: Jan. 18 Location: UFT

In partnership with the Wild Center, the Office of Sustainability will host its firstever DOE Youth Climate Summit (YCS) a daylong sustainability event for public and charter high school students. Through a series of keynotes, workshops, and expos, students will develop critical leadership and problemsolving skills through experiential learning. Participants will gain climate action knowledge and build peer networks to expand sustainability in their schools and communities. Register If you

would like to bring a group/team

of students or view this flyer for

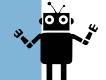
more information.

# STEM Calendar

December 27<sup>th</sup> Maker Ed Edcamp

December 28<sup>th</sup> #NYCSchoolsTech Partner Cert.

January 4<sup>th</sup> Robotics in the Classroom



January 5<sup>th</sup>
Why Computer Science Matters
in Communities of Color

January 8<sup>th</sup> Digital Storytelling For All

January 8<sup>th</sup> Integrating iPads

January 8<sup>th</sup>
Access Abilities

January 15<sup>th</sup>
Intro to G Suite Admin

January 17<sup>th</sup>
Hydroponics 101



January 22<sup>nd</sup> Filmmaker @ D75 Productions

> January 23<sup>rd</sup> AR You Ready For This?

January 24<sup>th</sup> & February 28<sup>th</sup> Designing Urban Transportation

> January 25<sup>th</sup> SMART Board for Math

January 25<sup>th</sup>
Modern Classroom Display Tech

January 25<sup>th</sup> Deploying <u>iOS</u> and <u>Mac</u>



# EdTech Gift Collection

Educational technology can empower student activities in the classroom and beyond. So we scoured resources for student creativity, work exploration, and general classroom use and offer them here. Whether you want to

hop into Hyperdoc happiness or just need ready to go lessons, we have you covered. Here we share a variety of our favorite resources as a gift to you for the holidays.

# STEM

### APP/SKILL OF THE MONTH

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

### PECS

Find a number of alternative means to integrate PECS resources.

## Student Creativity

- <u>Learn Google Drawings &</u>
   <u>Soundtrap</u>
- GSuite and the Writing Process
- Sketchnoting with Google Keep
- Design It Digitally
- Storytelling with Twine
- Graphic Organizers
- Creative Thinking & Problem-Solving
- Good Things Come in Hyperdocs



# Beyond the Classroom

- Google Mashup:
   Importing Data Into
   Google MyMaps
- Level Up your GEO Skills
- BreakoutEDU
- Create Your Own AR/VR
- <u>Design Thinking</u> Interactive Notebook
- Water for South Sudan
- Around the World
- More Now



### Mix 'n Match

- Posters for your
   Classroom
- The Gift of Reading
- Little Learner Activities
- Discussion Diamonds
- Ready To Go Lessons
- Create Your Own Question Trail
- Sub Plans with Style
- Surprise Bag of Learning



