NOVEMBER 26, 2018 / VOLUME IV / ISSUE III





#### P2 / VIDEO CONTENT

Make the most of video resources with Flipgrid & EdPuzzle.



#### **P3** / TEACHER LEARNING

There are a number of upcoming learning opportunities for teachers online & in-person.



#### P3 / STEM CALENDAR

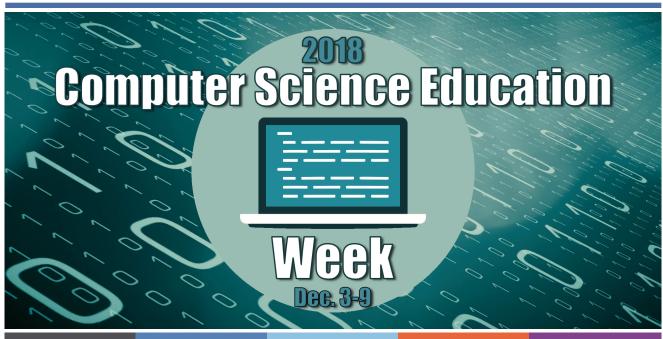
See what is going on in the world of STEM education.



#### P4/ MINECRAFT EDU

Bring the popular game into your learning experiences with several updates.

# District 75 STEMConnect



# Digital Citizenship Week

#### Computer Science Education Week

is coming up in December and it's time to think about how you can celebrate the Hour of Code with your students. Here are 7 ways to celebrate CS ED Week. If you want further insight you can get PD with D75 staff during Adapted Coding on Digital GBL which includes game creation. You can also find more learning opportunities through the Computer Science for All office and CODE Studio.

**Large School Event**–Code Studio provides a toolkit and videos to help you host.

Family Code Night Event–Invite families in for a night of computer science fun with a free event kit.

Ongoing CS Instruction—There are the Code.org curriculums, Apple's Everyone Can Code, Codesters programming, and more.

Class Fun-Engage students with CS games like Minecraft EDU, Gamestar Mechanic, or Codespark Academy.

Outside of Class-This can be a major Hack-a-Thon or a smaller local one. You can also start a CS club with Google CS First or other coding club organizations.

Make Something-You can turn to more hands-on projects in a Makerspace environment using Arduino, littleBits, or other circuits.

**Get Offline/Unplugged**–Some of the resources available include <u>Mozilla's</u> offline icebreakers, <u>CS Unplugged</u>, or links to <u>Hour of Code offline and device-free</u> activities.

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### Skill of the Month

#### **Flipgrid**

If you haven't yet caught the #Flipgrid Fever, you're part of shrinking group of educators. More and more teachers are using the video and collaboration platform to empower student voices. It's a way for teachers, students, and now parents to have video discussions amongst each other regardless of device or time zone.

#### **UPDATES**

While we've discussed the platform before, there are enough updated features to necessitate an update. The biggest of these is that Flipgrid is now part of the Microsoft family which means all the premium features will be free for all teachers in perpetuity. Here are some selected updates.

Check out <u>more of the new</u> <u>features</u>.

**New Camera/Player**–You can edit your videos after you recorded it and adjust for different screens (16x9, square, etc)! MyView even autocorrects flipped videos.

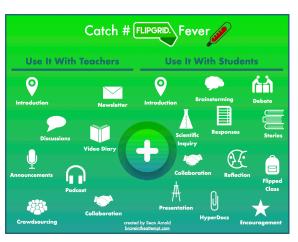
Grid Types—You can choose to create it based on a school email domain, a student id list, or make it a PLC/public grid (for those over 16).

<u>CoPilots</u> – Connect with other teachers across your school, state, or the world. You can share grids access and controls. There is now even as <u>Guest Mode</u>.

<u>GridPals</u>–Educators can connect to other teachers and classrooms around the world directly from the platform.

**Feedback**-You can now provide feedback and rubric scores much more easily along with the new Spark and Vibe features.

Accessibility-Along with the built-in accessibility like auto-captioning, Flipgrid has added



Microsoft's <u>Immersive Reader</u> to make the platform even more friendly to more learners.

<u>Discovery Library</u>—This is where teachers can share their favorite topics and borrow the best ideas from others.

Explorer Series – Using the Discovery library you can take your students exploring to meet experts on a variety of topics like marine biology, coding, or Mathemagic.

<u>Mixtapes</u>-Create a mix of your favorite moments of student or staff inspiration.

Check out all of the latest info.



# App of the Month



Having a movie isn't enough to make content worthwhile or impactful. Sites like BrainPOP, Flocabulary, or even YouTube have quality content, but the better sites provide pause points, interaction, and assessments connected to the video to enhance learning. <a href="EdPuzzle">EdPuzzle</a> allows teachers to take existing videos and add those

interactive elements themselves and review students responses.

**Quality Video Content:** You can pull content from many sites or upload your own. They even have their own <u>curated curriculum</u>.

**Content Editing:** You can trim the video, add full voiceover, or audio notes for further explanation. **Built-In Assessment:** You can embed open-ended or multiple choice questions directly into the video.

Share Content Easily: You can assign work easily through a Google Classroom or a public link.

Manage Students: You can set up classes and have students join using a class code or via Classroom.

Check out all of the details and see a subject/predicate example.

# Learning Opportunities

PARTNER CERTIFICATION
The #NYCSchoolsTech Partner
Certification Program just
released their application for their
winter/spring sessions for 2019.
These include certifications with
Apple, Google, Microsoft,
BrainPOP, SMART, Promethean,
Classcraft, and more. They are
due by December 28th, but some
fill up quickly so be sure to
submit soon.

#### **WETEACHNYC**

WeTeachNYC If you're looking for exemplar lessons,

professional learning, or training videos the WeTeach NYC site has many crafted and curated by DOE educators.

#### **NYSCATE**

New York City has little interaction with the rest of the state's tech education group, but there are worthwhile initiatives they put forward that benefit city educators that take place nearby. Amongst these are their online **Teach Wonder** robotics training and Leadership Mastery training. There are also a 2-Day Google Trainer Institute and a VR/AR Workshop in the Bronx in early December and January. Their major training though is ISTE Educator **Certification** in January just outside the city.

#### **STEM COMPETITIONS**

Along with the D75 STEM Fair, STEM Week, LEGO League, Minecraft EDU events, there are 7 national STEM competitions that may interest you.

- CS STEM Network
   -They have a variety of themed competitions.
- eCybermission-This is a webbased STEM competition for 6-9 grade students to solve real problems in their communities.
- Google Science Fair-This online science competition invites seeks world changers.
- Imagine Cup-Microsoft's global competition to create original technology gives winning teams \$100,000.
- Intel International Science & Engineering Fair-The largest international pre-college science competition offers a database of winning projects.
- Regeneron Science Talent Search Billed as the most prestigious research competition for HS seniors yo present original research.
- Zero Robotics Tournaments-MS and HS students program satellites in space with the finals conducted by an astronaut on the ISS.

#### **ONLINE LEARNING**

The Ed Tech
Team Virtual



Summit has recaps available across countries and languages for any that missed it. There wasDon't forget the online learning discussed in the previous newsletter like the Microsoft's Educator Community, Google's Teacher Center, Apple Teacher, and BrainPOP 101.



November 28<sup>th</sup> Accessibility in Math Classrooms

November 28<sup>th</sup>
Ensuring School Website Accessibility

November 28<sup>th</sup> & December 10<sup>th</sup> SPOC Meet-Up: Brooklyn

November 29<sup>th</sup> Notebook for Alternate Learners



November 30<sup>th</sup> Deploying iOS & Mac

December 1st or 8th Google CS First

lapted Coding for Alternate Learners

December 3<sup>rd</sup> SPOC Meet-Up: Staten Island

December 5<sup>th</sup>
MS Accessibility Teacher Academy

W YORK CITY

SOAPBO

HERB

December 7<sup>th</sup> Soap Box Derby Competition

December 10<sup>th</sup> Accessible Makerspace: Textiles

December 12<sup>th</sup> Brooklyn Innovative Teaching Sharefest

> December 12<sup>th</sup> <u>Teams Teacher Academy</u>

December 12<sup>th</sup> & 19<sup>th</sup> Digital Game-Based Learning



December 14<sup>th</sup> Get Going with G Suite 101

December 17<sup>th</sup> SPOC Meet-Up: Manhattan

December 20<sup>th</sup> Become a Filmmaker @ D75

### Minecraft Education

#### **MINECRAFT IS...**

- A game about breaking and placing blocks, where players work together to create wonderful, imaginative worlds
- A place where educators allow students to write their own story, build their big idea, and discover what they've never imagined before
- A platform for imagination, autonomy, internalizing motivation, and rewriting failure
   D75 educator essentials
- Constantly <u>updating with new</u> <u>features</u> like the <u>aquatic</u> <u>update</u>.
- Chemistry through an update that includes element building
- Is now <u>available on iPads</u>

#### **BEGIN YOUR JOURNEY**

- · Reach out to the STEM team
- · Join the community

- Complete <u>the tutorial world</u>
- Get more info at <u>Minecraft</u>
   <u>Gamepedia</u> or <u>Dig Minecraft</u>
- Start a conversation using #MinecraftEdu

# EDUCATION EDITION FEATURES

- Assess & Reflect: The camera and portfolio allow students to take screenshots of their work and document their progress.
- Immersive Learning: Non-Player Characters act as tour guides in the game, extending learning by linking to additional resources.
- Classroom Collaboration:
   Student can work together in pairs or groups simply by joining their classmates' world.
- Computer Science Instruction: Code Builder is an extension that allows educators and students to



- explore, create, and play in an immersive Minecraft world. Students write code connecting to learn-to-code packages like ScratchX, Tynker, Code.org CodeStudio, and a new platform called Microsoft MakeCode.
- Teacher Tools: Classroom Mode is a companion app for Minecraft: Education Edition allowing educators to manage world settings and talk with students. There are special blocks and tools to allow full teacher control through educational blocks They can also give items and teleport students in the Minecraft world while seeing a map view of the Minecraft world and viewing a list of all of the students in the world.

### **MINECRAFT & 21st-CENTURY SKILLS**

Minecraft: Education Edition is a collaborative & versatile platform that educators can use across subjects to encourage 21st\_century skills.



Collaboration



Citizenship



Communication



**Character Education** 



Creativity



**Critical Thinking** 



#### **MORE LESSON IDEAS**

Architecture: Use Code Builder to recreate famous skyscrapers from around the world like Taipei 101 or Burj Khalifa. Let the Agent build while students create the surrounding area.

Art History: Create a community where students work in groups to design homes inspired by Mondrian, Monet, Picasso, or Warhol.

**Math:** Build a home to specific requirements while noting cost. Attach a cost per block and have students stick to a budget.

**Science:** Experiment with farming, have students create farming programs using Code Builder, and

change certain variables to see how these affect growth rates.

Creative Writing: Students can build a visual complement to their poetry and place signs to create "visual poems" for peers to walk through.

Literature: Build the setting of a book they are reading and use slates, posters, and boards to respond to discussion questions or make connections between the book and their world.

Foreign Language: Switch languages in Minecraft to a foreign language and have students build a community while chatting and using NPCs and signs only in the second language.

Computational Thinking: Use loops and repeats to create programs using Code Builder that help them build quicker.

## STEM Next Issue

#### 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.

Community: Build simple tutorials in their worlds to bring home and teach family members how to do basic tasks in Minecraft like building a house or mining.

Project Planning: Have students recommend content that could be redone using Minecraft and have them build and write about how they'd change the lesson for future classes.

### **LESSON IDEAS**

Age 13+ | Subject: Science

#### **Learning Objective:**

Engage in research on the conditions that allow Earth to support life. Design and build a sustainable habitat for humans on Mars.

#### **Guiding Ideas:**

- What does research tell us about sustainable living on extraterrestrial environments?
- What makes earth a particularly hospitable environment for humans?

To access the full lesson: <a href="mailto:aka.ms/">aka.ms/</a> alienexploration



Age 5-9 years-old | Subject: Mathematics

Learning Objective: Students will be able to relate fractions and decimals using base ten.

#### **Guiding Ideas:**

- How can we represent parts of a whole?
- How can we visualize fractions and decimals in the real world?

To access the full lesson: <a href="mailto:aka.ms/">aka.ms/</a> decimalgarden

Age 10-12 years-old | Subject: Literacy

Learning Objective: Students will identify elements of setting in multiple examples of published text. Students will create a Minecraft world, or an area within the world, that includes specific elements for the setting in the story.

Guiding Ideas:

- How can we identify elements of story setting from our reading?
- What words and images from the text help to create a scene in the reader's mind?

To access the full lesson: <a href="mailto:aka.ms/storysetting">aka.ms/storysetting</a>

