



# 2022 CS Ed Week Resource Guide

Curated by the *Microsoft TEALS Program*

Building equitable, inclusive computer science programs in high schools

Check back for updates  
[Aka.ms/2022CSEdWeekPDF](https://aka.ms/2022CSEdWeekPDF)

# CSEd Week



CSEdWeek

*CSEdWeek 2022, Dec. 5-11*

#CSEdWeek is an annual call to action to inspire K-12 students to learn computer science (CS), advocate for equity in CS education, and celebrate the contributions of students, teachers, and partners.

The CSEdWeek theme this year, #CelebratingProgress, highlights the movement that has occurred in CS education over the past decade.

This year, CSEdWeek aims to celebrate progress while continuing to advance efforts that ensure every student has an equal opportunity to learn CS.

**Learn more** [csedweek.org](https://csedweek.org)

## TEALS Program

The Microsoft Philanthropies Technology Education and Learning Support (TEALS) Program is pleased to present the *2022 CS Ed Week Resource Guide*. This guide is possible thanks to the many partners who have contributed resources to help you celebrate!

TEALS supports CS education year-round by connecting students, educators and schools with volunteers from the tech industry.

**Learn more about how TEALS supports high schools**

[Microsoft.com/TEALS](https://Microsoft.com/TEALS)

**Connect with your local TEALS representative**

[Aka.ms/contactTEALS](https://Aka.ms/contactTEALS)



The power of education, especially computer science, is giving students the ability to change the world."

– Kirk Thomas,  
McDonogh 35, TEALS teacher

**Scroll down for CS Ed Week resources!**




















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## Resource key

-  Teacher resource
-  Hour of Code
-  Competition
-  Event



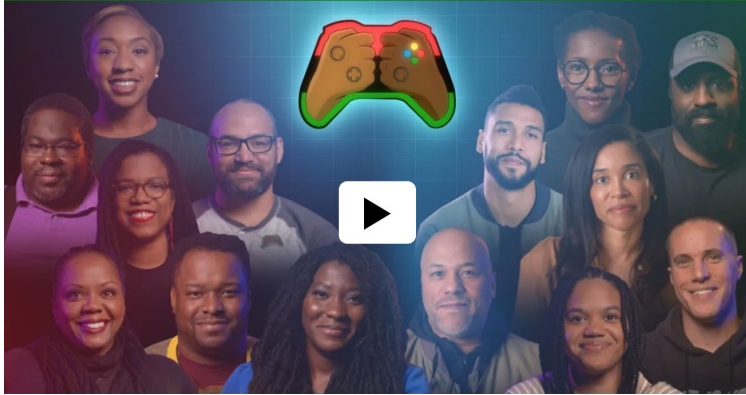
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## Black @ Xbox – Project Amplify



Introducing: *Project Amplify* – a video series that aims to magnify Black voices within Xbox to inspire, educate and motivate youth across the U.S. to aspire towards careers in the gaming industry through real-life storytelling from Black leaders and employees from the Xbox ecosystem.

Read about Project Amplify

**[Xbox Launches “Project Amplify” to Support Black Youth Interested in Gaming Industry Careers](#)**

Share the video series with your students

**[YouTube Playlist](#)**

“In my early years I was more focused on what not to do versus what I could be. It wasn’t until my adult years that I learned to leverage my passion for games into a career. I am now incredibly thankful to be celebrating 10+ years in my dream career and I hope Project Amplify inspires people to dream and take action toward their own goals.”

– James Lewis, Senior Business Dev. Manager



## Code.org – Hour of Code

It’s Hour of Code 2022!

Code.org is excited for students of all ages to try CS—maybe for the first time! The Hour of Code is a one-hour introduction to CS using fun tutorials to show that anybody can learn the basics. However, you want to explore, play, or create, spend an hour trying CS for yourself!

**Explore, play, create**

**[hourofcode.com](https://hourofcode.com)**



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## Carnegie Mellon University - CS Ed Week Events

For CS Ed Week, Carnegie Mellon University's Computer Science Academy team presents a series of CS education videos!

Recordings will be released at 11:00am EST December 5-11 and can be accessed here: CMU CS Academy – YouTube.

### Computer Science Education Week

Celebrate CSEdWeek with CMU CS Academy

All recorded sessions will be released at 11:00 am EST December 5-11



youtube.com/  
@cmucsacademy3467



"I tell my students, 'I'm not an expert. I'm learning computer science with you!' My class is one big collaboration - and it's fun"

-Elaine May, TEALS partner teacher, Warwick, RI

	Session 1	Session 2
Monday <b>05</b>	I Used to Think CS [...] But Now [...]	CS Heroes - Ada Lovelace, First Computer Programmer
Tuesday <b>06</b>	CMU CS Academy Student Interview (English) 3:00PM EST <b>LIVE</b>	CMU CS Activities: Robotic Submarine (RoboSub)
Wednesday <b>07</b>	Workshop: Creating a Winter Wonderland Using Advanced CMU CS Academy Methods	CMU CS Activities: picoCTF - Cybersecurity Competition
Thursday <b>08</b>	CMU CS Academy Student Interview (Spanish) 4:00PM EST <b>LIVE</b>	CS Heroes - Alan Turing, WWII Hero
Friday <b>09</b>	Workshop: Coding a Teacher Thank You Note Using CMU CS Academy!	CS Heroes - Barbara Liskov, First Woman to Graduate With a PhD in CS
Saturday <b>10</b>	Workshop: Looping You in on Using Loops	CS Heroes - Grace Hopper, Pioneer of Computer Programming
Sunday <b>11</b>	Thank You from CMU CS Academy!	CS Heroes - Donald Knuth, Father of the Analysis of Algorithms

Check back for updates [Aka.ms/2022CSEdWeekPDF](https://aka.ms/2022CSEdWeekPDF)

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## CSTA – Celebrate your progress

The Computer Science Teachers Association (CSTA) wants to know how YOU have made progress in your CS education journey! Has your perspective evolved? Have you learned new things? Whatever your story is, CSTA wants to hear it. Share your story on social media using the “How it started, how it’s going...” templates and show the world your own personal CS progress.

Share your progress [Celebrate | CSEdWeek](#)  
[#CSEdWeek](#) [#CelebrateProgress](#)

Find templates here [social media templates](#)



## CSTA – CSEdWeek kick-off panel

Start your CS Ed Week with the CSTA kick-off panel. The select panel of 2022 CS Heroes will share about their own journeys and celebrate community milestones in CS Education. Panelists will discuss what has inspired them and their recommendations for how we can continue to advance so that every student has an equal opportunity to learn CS. Panelists include Okezue Bell, Yim Register, Kayla Saniya Fortson, and Daisy Murillo.

The event will be live streamed on Monday, December 5th, at 1pm ET.

Register [CSEdWeek 2022 Kick-Off Panel](#)



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## EXAMINING K-12 CS EDUCATION FROM THE TEACHER'S LENS: RESULTS OF A RECENT NATIONAL STUDY



Thursday, 12/8/2022  
4-5 p.m. EST



## CSTA – Examining K-12 CS Ed from the Teacher's Lens

The Computer Science Teachers Association (CSTA) and Kapor Center will share findings from a 2022 national survey of PreK-12 CS teachers. This will include the current landscape of PreK-12 CS education, including their demographics, teaching background, school context, professional development, instructional practice, and identity-inclusive computing practices. Plus, we will share related recommendations for policymakers, educators, industry leaders, and school district administrators.

Attendees will hear the results of the national landscape study examining the background and experiences of thousands of PreK-12 CS teachers in the United States to understand challenges and opportunities for support creating more equitable student outcomes.

This content is most relevant for those in roles supporting PreK-12 CS teachers, including, teacher leaders, administrators, state leaders, industry leaders, researchers, and policymakers. All are welcome.

**Register [CSTA: Examining K12 CS Education from the Teacher's Lens Event](#)**



## Cyber.org - Simple Web Application Attacks

Learn the basics of web application attacks in this free virtual workshop for high school/CTE educators!

Virtual Event  
December 8, 6:30pm – 8:00pm

**[Register](#)**



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## Dream Hustle Code – Teen Tech Live

**Teen Tech LIVE 3.0** is Dream Hustle Code's Annual Event that brings together thousands of youth from hundreds of schools across America for an engaging tech/gaming-centered educational experience featuring celebrity guest appearances, powerful interviews, tech demos, real-time virtual contests every 15 minutes, a gaming tournament and so much more.

Teen Tech LIVE's goal is to create a really DOPE opportunity for more teens from under-served & under-represented communities across the U.S. to "see themselves in tech" while seriously considering the exciting new career possibilities that await them.

**Friday, December 9, 2022 - Register today!**



DREAM HUSTLE CODE/NEW NERD PRESENTS...  
**TEEN TECH LIVE 3.0**

JEFF HOFFMAN  
PRESIDENT OF MICROSOFT

DR. ERIC "ET" THOMAS  
THE HIP HOP THOMAS

DAME DASH  
FOURTEEN MILLION CO-FOUNDER  
MUSIC INDUSTRY INVESTOR

NISAINI REXACH  
HEAD OF TONYO TIGHT

DERRICK ROSE  
NEW YORK SINCE HE BORN  
YOUNGEST BOY WITH AN HISTORY

DARRELL BOOKER  
HEAD OF EQUAL OPPORTUNITY PLUS

JEWEL IFGOUNI  
FOUNDED JEWEL  
LIFETIME

WHEN YOU WANNA  
**SUCCEED**  
AS HARD AS YOU WANNA

FRIDAY  
**DECEMBER  
9th 2022**  
11:00 AM CST

Join **THE WORLD'S  
LARGEST  
VIRTUAL FIELD TRIP**

MUSIC - TECH - GAMING - CELEBRITY - PRIZES  
ALL STUDENTS 6TH-12TH GRADE

EDUCATORS  
REGISTER TODAY  
[www.teentech.live](http://www.teentech.live)

IAN MICHAEL BROCK  
DESIREE QUEZADA  
EVENT HOSTS

**GAMING TOURNAMENT**  
STARTS: 5:30 PM CST

Microsoft XBOX Exposure AMERICAN FAMILY INSURANCE WORLD YOUTH FORUM



## EarSketch: Your Voice is Power

Your Voice is Power is a project-based curriculum and national remix competition that introduces the fundamentals of CS to students through an exploration of music and social change. Across six learning modules, students engage in fun activities and thought-provoking discussions to learn how these topics intersect.

For the competition, students use EarSketch, a free online code editor, to compose a unique song while learning CS. EarSketch is hosting virtual Hour of Code sessions exploring the platform and competition during CS Ed Week.

Visit EarSketch's website for more details  
[teachers.ears sketch.org/compete](http://teachers.ears sketch.org/compete)

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# girls who code



## Girls Who Code – Gaming activation

This December, Girls Who Code (GWC) is launching a desktop and mobile gaming experience to get girls interested in code by having them craft their own video game characters!

In this gaming activation, students will be able to code body type, skin tone, facial features, hair styles, outfit details and accessories, personality and identity details and share their creations on social media and within an online gallery.

**Explore GWC** - [Girls Who Code Girls](#)

*"Girls Who Code has impacted my life by inspiring me to forge my own path and to be a role model for students in underrepresented groups pursuing STEM."*

*-Gloria Salas, Virtual Mentoring Alumna*



## Hello World CS - Bringing Data Science & AI to Your Classroom

Join this [Hello World CS](#) professional development session to learn how to bring engaging and rigorous Data Science & AI learning to your classroom overnight! Educators will have the opportunity to build their own projects in Python and experiment with data files, AI programming, Python libraries, and debugging challenges, all within their browser! When implemented in the classroom, this course engages students in projects like Building a Chatbot, Password Hacker, Trivia Quiz, Climate Visualizer, and Media Recommender. For those who join, we'll be providing a 45-day free trial for your classroom to test run our turn-key Data Science & AI program, including PD.

We'll have breakout rooms for elementary school, middle school, and high school educators! No previous coding experience required.

**Tuesday, December 6th - 2pm PST / 4pm CST / 5pm EST**

Reach out with any questions to [partnerships@helloworldcs.org](mailto:partnerships@helloworldcs.org).

**[RSVP - Bringing Data Science & AI to Your Classroom](#)**



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## Hello World CS - Bringing VR Coding to Your Classroom

Join this [Hello World CS](#) professional development session to learn how to bring engaging and rigorous VR coding to your classroom overnight! Educators will have the opportunity to build their own 3D worlds and experiment with animations, collisions, audio files, and physics through block-based coding, all within their browser! When implemented in the classroom, this course engages students in projects like Obstacle Course, Moon Landing, City Builder, and Magic Show. For those who join, we'll be providing a 45-day free trial for your classroom to test run our turn-key VR program, including PD.

There will be breakout rooms for elementary school, middle school, and high school educators! No previous coding experience required.

**Wednesday, December 7 - 2pm PST / 4pm CST / 5pm EST**

**Questions? Email: [partnerships@helloworldcs.org](mailto:partnerships@helloworldcs.org)**

**RSVP - [Bringing VR Coding to Your Classroom](#)**



## Microsoft Flip – virtual events

**Peruse Flip Discovery Library** – [Coding and Computer Science Collection](#) of ready to launch topics for students to learn, code and discuss!

**Attend virtual Flip events** [Aka.ms/flipevents](https://aka.ms/flipevents)

**December 5, 2022 - Flip Community Conversation “Creating Equity in Computer Science”**

- Join Flip for a discussion on the importance of CS education with industry professional, educators and non-profits who are making this happen every day. Flip will share ideas, activities and resources to help you get started!

**December 8, 2022 - Building a Better World with Code!**

- Meet Lydia Winters and Cory Scheviak, who spend their days at Mojang Studios in Stockholm, Sweden, working on Minecraft. They are passionate about using the power of play to build a better world and the creativity of code to design features for the bestselling game of all time! Lydia and Cory will each share how they got to Mojang, and why coding can change the world.



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## Microsoft MakeCode – Code a Carnival

MakeCode's Code a Carnival introduces students to game design through block-based coding as they create traditional carnival activities: Whack-the-Mole, Burstin' Balloons, and Target Practice. To further bring the carnival to life, students can create a multiplayer version of Burstin' Balloons to put their gaming skills to the test. Along with guided tutorials, MakeCode has provided an easy-to-use teacher resource guide. Whatever your students' coding experience, everyone can increase their programming knowledge and have fun while coding a carnival game!

Bring Hour of Code™ into your classroom with games that make coding fun for you and your kids — no hardware or downloads required. Whether you've got an hour or a week, MakeCode will get you started with creative tutorials, and customizable lesson plans.

**Get started [Microsoft MakeCode Arcade Hour of Code™ 2022](#)**

**Explore MakeCode resources [Teacher Lesson plan and resources](#)**



## Microsoft Minecraft – Estate Escape

Minecraft's Estate Escape challenges students to solve puzzles to escape from Dr. Breakowski's mysterious mansion in the new Minecraft Hour of Code: Estate Escape!

Students use computational thinking to unlock secrets, open trap doors, and reveal hidden clues. Choose your own coding language – either block-based coding with MakeCode or text-based coding with Python for a challenge. Code your way out by dawn to earn a million emeralds!

**[Official Trailer](#)**

**Try this lesson today [Aka.ms/HourofCode2022](https://aka.ms/HourofCode2022)**

**Check out** the new one-hour **[Minecraft 101](#)** training to learn the basics about game-based learning with Minecraft and read about **[licensing](#)** options. If you don't have Minecraft Education Edition, **[download here](#)** for a free trial.

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## National Center for Women & Information Technology

### TECHNOLOchicas

Co-produced by the National Center for Women & Information Technology (NCWIT) and the Televisa Foundation, is a national initiative designed to raise awareness among young Latinas and their families about opportunities and careers in technology. Meet the TECHNOLOchicas Ambassadors featured in our latest campaign on our [YouTube channel](#).

### More resources:

NCWIT Counselors for Computing (C4C) Resource Booklet  
<https://ncwit.org/resource/c4cbooklet/>

NCWIT Counselors for Computing (C4C) Educational Pathways poster  
<https://ncwit.org/resource/c4cposter/>

3Top 10 Ways Families can Engage:  
<https://ncwit.org/resource/top10families/>

Top 10 Ways to Engage Underrepresented Students in Computing  
<https://ncwit.org/resource/top10engagestudents/>



## Popfizz.io – Hour of Code

Popfizz Hour of Code presents data visualization, game development, and cybersecurity activities. Email [team@popfizz.io](mailto:team@popfizz.io) for teacher guides!

**Try the Popfizz Hour of Code: [popfizz.io/hour-of-code](https://popfizz.io/hour-of-code)**



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## Project Lead The Way - Creating a PreK-12 CS Pathway

Project Lead The Way (PLTW) believes all students – beginning at a young age – need access to real-world, applied learning experiences that empower them to gain the skills they need to thrive in college, career, and beyond. That’s why our pathway in computer science provides hands-on learning opportunities from the first day of pre-kindergarten through senior year. PLTW’s PreK-12 CS pathway empowers students to discover and explore interests, imagine and design solutions to real-world challenges, and become confident problem-solvers.

**[Webinar Registration – Zoom](#)**  
Dec 7, 2022 4PM

**[Resource - A Taste of Computer Science](#)**



## Quorum – Screen reader support

### Sensory Impairments

For students who use a screen reader, the [Quorum tutorial for beginners](#) or the [Quorum tutorial for comfortable students](#) is a great place to start. Quorum started as an interpreted language designed to be accessible to screen reader users. Eventually, it became a general-purpose programming language designed for any user. You can use these Hour of Code tutorials with your entire classroom. And, if you want to go beyond an Hour of Code, the team at Quorum has additional tools and curriculum.

Learn more about supporting students with disabilities

**[Supporting special needs students for the Hour of Code](#)**



## Xbox and Marvel - Black Panther STEM inspiration

Black Panther is one of the most culturally impactful heroes of our generation, representing technological innovation, courageous leadership, and Black excellence — all values that resonate deeply within the Xbox community. To celebrate the theatrical release of Marvel Studios’ highly anticipated sequel “Black Panther: Wakanda Forever,” Xbox aims to inspire a new generation of heroes to innovate, build, and create a space for themselves in the Gaming and STEM industries.

**[Code your own adventure MakeCode Arcade](#)**

**[Check out the Educator Guide](#)**

**[Explore more resources Stand with Xbox and Wakanda | Xbox](#)**



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## Thank you to the partners who shared resources for CS Ed Week

[Black @ Xbox](#)

[CMU CS Academy](#)

[Code.org](#)

[Computer Science Teacher Association](#)

[Cyber.org](#)

[Dream Hustle Code](#)

[EarSketch](#)

[Girls Who Code](#)

[Hello World CS](#)

[Microsoft MakeCode](#)

[Microsoft Minecraft Education](#)

[Microsoft Flip](#)

[The National Center for Women & Information Technology \(NCWIT\)](#)

[Popfizz](#)

[Project Lead The Way](#)

[Quorum](#)

[Xbox and Marvel](#)

Follow the Microsoft TEALS Program on social media throughout the week for more updates.



For more K-12 CS resources [Microsoft CS Education](#)