

Welcome!

NGCP National Webinar:

Enjoy Computer Science Education Week with Microsoft MakeCode

Please respond to the poll on your screen



National Girls
Collaborative Project



NGCP 

20 YEARS TRANSFORMING STEM

Enjoy Computer Science Education Week with Microsoft MakeCode

December 6th, 2022

NGCP Vision

The vision of the National Girls Collaborative Project is to **support and create STEM experiences** that are as **diverse as the world we live in.**



Our Goals

Connect + Create + Collaborate

1

Build and sustain a network of advocates to provide equitable and inclusive STEM opportunities.

2

Catalyze equity in STEM from research to practice by providing actionable knowledge that transforms the STEM experience.

3

Increase our collective impact by strengthening organizational effectiveness and enhancing our fiscal sustainability.



NGCP Activities

- Network Partnerships
- IF/THEN Collection
- FabFems
- Youth Advisory Board
- State Leadership Teams



National Webinars

- Offered monthly on topics to help our networks grow and thrive
- Speakers include educators, researchers, authors, and diverse STEM professionals
- Sign up: <https://www.ngcproject.org/events-announcements>

"I have gotten more out of this than the dozens of other presentations I have attended this summer."

"I found this useful and enjoyable."

"I really like all the resources placed in the chat that I can go and flip through to find what is most helpful to my organization"



NGCP Newsletter

- National in-person and online events
- STEM resources for engaging girls and youth, professional development opportunities for educators, and opportunities for youth
- Research and reports related to STEM and equity, informal STEM education and learning
- NGCP updates and events, including webinars, knowledge products, and tools



Kiki Prottzman

Director of Education, Microsoft MakeCode

Kiki is Director of Education at Microsoft MakeCode, as well as the author of several books, including *Computational Thinking and Coding for Every Student*, *My First Coding Book*, and *Disney's Coding with Anna and Elsa*. In her spare time, Kiki runs an educational YouTube channel called KIKIvsIT, which helped her win one of Stevie's coveted Female Innovator of the Year Awards.



Microsoft MakeCode

Making Computer Science

fun



- ✓ fun
- friendly
- relevant
- physical
- game-based
- real

Name

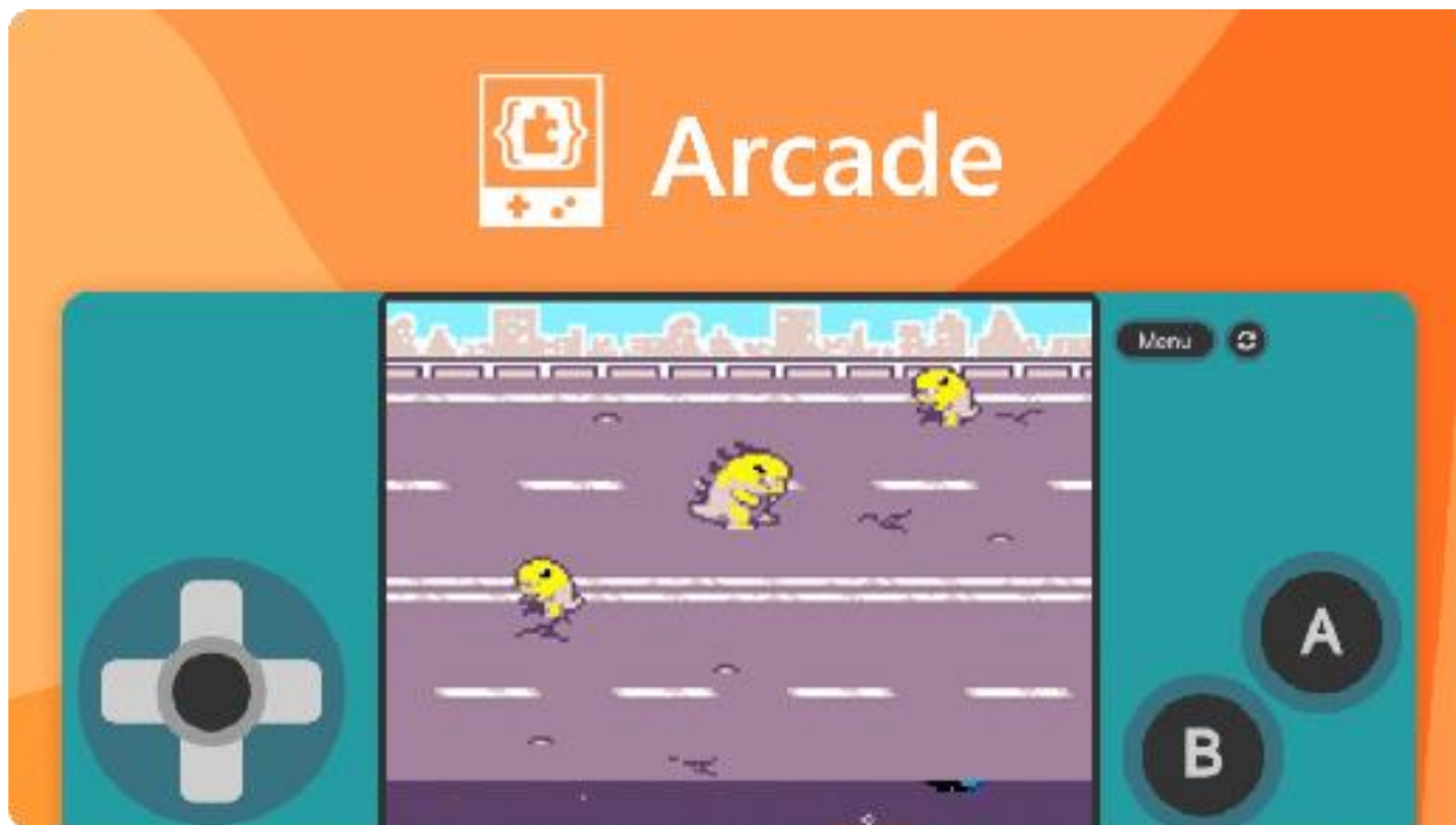
Title

```
let date = new (Date) // "Insert date here"
```




Make & Code

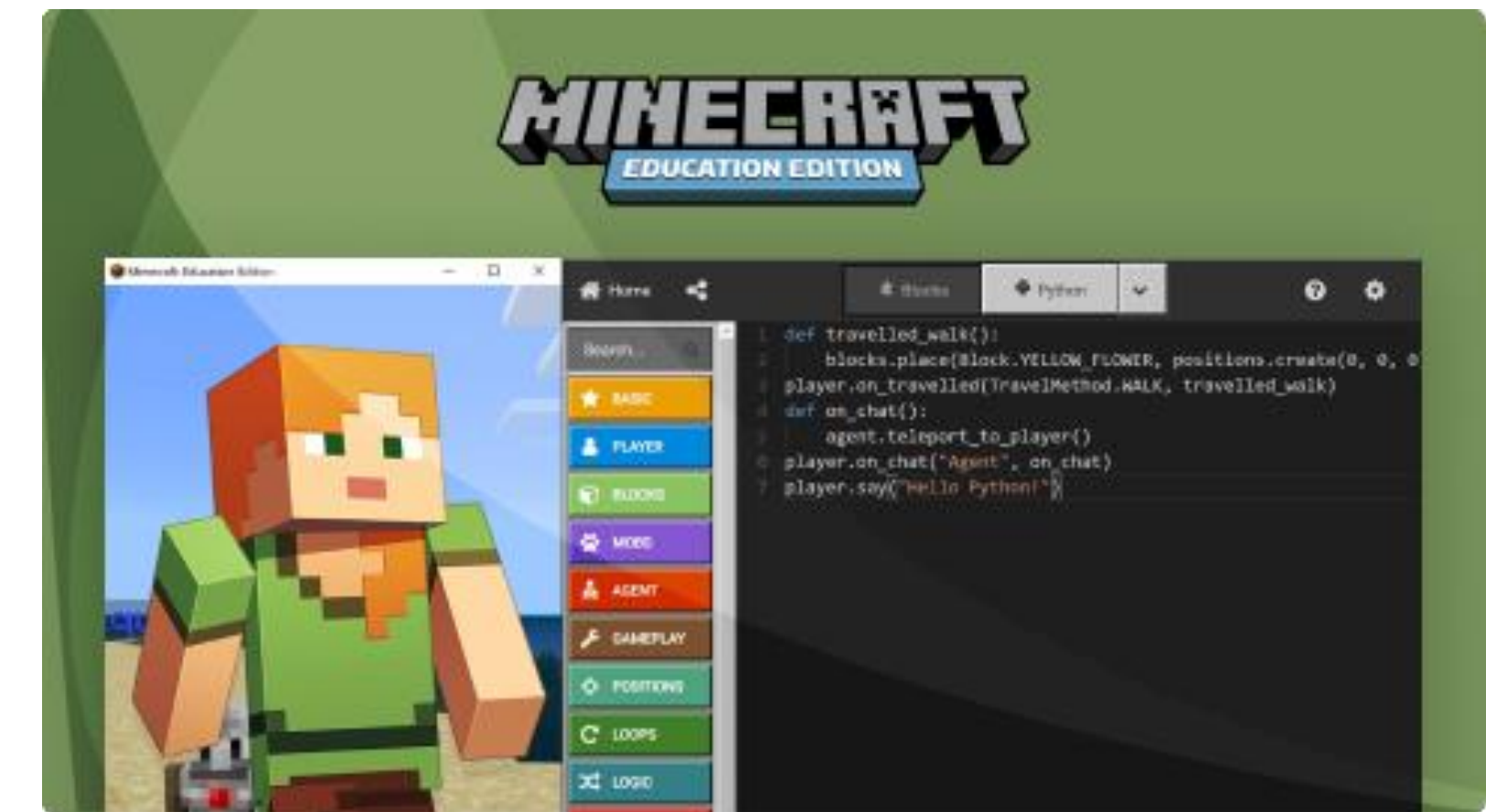
Microsoft MakeCode is a free online learn-to-code platform where anyone can build games, code devices, and mod Minecraft!



MakeCode Arcade



MakeCode for the micro:bit



MakeCode in Minecraft: Education Edition

Blocks \leftrightarrow JavaScript/Python

Supporting learners at different levels

The screenshot displays the Microsoft MakeCode editor interface. On the left is a sidebar with various tool categories: BLOCKS, MOBS, AGENT, GAMEPLAY, POSITIONS, LOOPS, LOGIC, VARIABLES, MATH, EXTENSIONS, ADVANCED, FUNCTIONS, ARRAYS, TEXT, BUILDER, and SHAPES. The main workspace is divided into two sections. The top section shows a block-based script starting with an 'on start' block, followed by a 'set index to 0' block, and an 'array of' block containing ten 'animal' items. Below this is a 'set good to' block. The bottom section shows two 'on chat command' blocks. The first is for the command 'arena', which includes 'builder teleport to player world position', 'builder move back by 10', 'builder move right by 10', 'builder place mark', and a 'repeat 4 times' loop containing 'builder move forward by 20'. The second is for the command 'spawn', which includes two 'for' loops. The first loop iterates over 'index2' from 0 to 'length of array good' and contains a 'spawn good get value at index2 at ~ 5 ~ 0 ~ index2' block. The second loop iterates over 'index3' from 0 to 'length of array bad' and contains a 'spawn bad get value at index3 at ~ 5 ~ 0 ~' block. The bottom right corner features a green play button and a zoom control.

Just works

- Free
- Online, no install
- Cross-platform
- Open source, extensible
- Online / Offline
- Secure & Protected



Curriculum

Elementary School (ages 6-10 years)	<ul style="list-style-type: none">• Getting Started with the micro:bit• Teaching micro:bit at the primary level• Minecraft Hour of Code• MakeCode Arcade Hour of Code
Middle School (ages 11-14)	<ul style="list-style-type: none">• Intro to CS with micro:bit• Science Experiments with micro:bit• Coding with Minecraft• MakeCode Arcade Skillmaps
High School (ages 15-18)	<ul style="list-style-type: none">• TEALS Intro to CS with MakeCode Arcade• AP CS Principles with MakeCode Arcade

MakeCode Arcade



Game Development for everyone

- Simple
- Easy on-ramp with Skillmaps
- Creative, Personal
- Hardware devices
- Career path



CSEd Week 2022

- Step-by-step instructions and explanations
- Pixel image editor
- Game window for immediate feedback

aka.ms/HoC22



Q & A

We'll take questions from the chat and from people using the 'hand raise' function.



Call to Action

In the chat...

- Share one activity you will try during Computer Science Education Week
- Share one resource you will explore after this webinar
- Share something you will do beyond Computer Science Education Week



Last NGCP Event of 2022

NGCP Holiday Sweater Networking

Tuesday December 13th, 2022 at 10am
Pacific / 1pm Eastern

Sign Up: <https://ngcproject.org/events-announcements>





20 YEARS OF TRANSFORMING STEM

Learn more at ngcproject.org

Webinar Questions? Contact: asullivan@ngcproject.org