Girls, who Game:

Using Mathematics in Minecraft to Model Solutions to the 17 UN Sustainability goals

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#### https://bit.ly/3Fxkdre



#### Who am I?

- High School Math teacher for 16 years
- STEM academy coordinator for 6 years
- Girls Who Code facilitator for 7 years
- Girls Who Game facilitator for 2 years
- WIT Woman of the Year- STEAM Education
- NCWiT Aspirations in Computing Educator Award

Also, I'm a woman and I play games





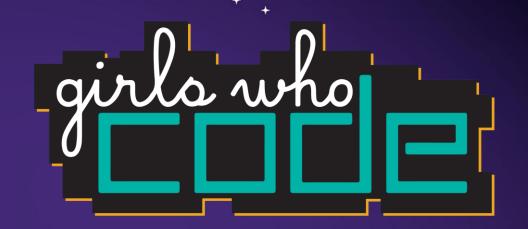
# Why do we need girls in gaming?

The gaming industry generates over \$200 billion each year but only 30% of the industry workforce is female

workforce is female























## What is Girls Who Game?

A program sponsored by Dell that develops both STEM and leadership skills through gaming

skills through gaming



### Games with a purpose The UN 17 Sustainability Goals

Each Season, one of the 17 goals is selected as a main focus

Students work together to research and come up with solutions to the problem



They then model that solution through Minecraft





#### Why Minecraft?



Educational Minecraft is already on most school computers

Girls Who Game is sponsored by Dell, <u>Microsoft</u> and Intel

Free world play, group play, coding possibilities

#### So.... What does that look like?







# \* Is this assessable?

Competency	Criteria	Emerging	Developing	Advancing	Mastering
Communication	voices are clear and articulate     Script is paced for audience understanding     Script and video are recorded with	your audio presentation. It is a challenge to understand what you	Some of the voices are clear. Focus on smoothing out the presentation. The script and video sometimes matched.	The presentation is easy to hear. Voices are clear. Good flow to the presentation. The script and the video are well matched.	It is very easy to hear your presentation. Voices are clear and articulate. The club must have written out their scripts and rehearsed! The presentation flowed the whole time! The script followed the video perfectly!
Collaboration	Inclusion of all team members with cleverness     Applies and identifies the perspectives of	Very few members of the team are part of the submission. Other perspectives, are not part of the submission.	submission. It was a challenge to determine if other	There is evidence that most members of the team are part of the submission. Other perspectives, such as mentors, are included in the submission.	There is evidence that all members of the team are part of the submission. Other perspectives, such as mentors and more, are included in the submission.
Creativity	Demonstrates     extension of     existing community use     s/ ideas with     resourcefulness and     imagination     Demonstrates     new community uses /     ideas with	Try to come up with your own ideas!	There are some new ideas in the submission.	There are new ideas and extensions to existing ideas in the submission.	Wow - very imaginative! We never would have thought about that! There are new ideas and very imaginative extensions to existing ones. Your team must have brainstormed and iterated a lot!

Citizenship	•	accessibility, and sustainability with	Your submission and presentation demonstrate little empathy or kindness.	Your submission and presentation demonstrate some empathy, kindness and shows how your build is beginning to be inclusive, accessible, and sustainable.	empathy, kindness and is inclusive, accessible, and	Your submission and presentation demons empathy, kindness ar inclusive, accessible, a sustainable. What yo will make local and g communities a better all.
Critical Thinking and Problem Solving	•	the design with purpose Analysis of perspectives that address sustainability,	and coding is used in the design. Still learning how to	Some computational thinking and coding are used in the design. The team is beginning to analyze and synthesize information on sustainability, inclusivity and/or accessibility to solve problems.	There is evidence that computational thinking and coding is used for the design work. There is evidence the team analyzed and synthesized information on sustainability, inclusivity and/or accessibility to solve problems.	There is evidence tha computational thinkir and coding was used for interesting design There is evidence the team analyzed and sy a variety of perspecti sustainability, inclusiv accessibility to solve problems in way.
Comments/ Feedback				•	•	

#### Interested in bringing Girls Who Game to your district?

bit.ly/3qpdHZU





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