Creative Computing with KANO

Lesson 3 - Designers, Artists, Animators

Learning Objectives:	
1. Learners to understand that visually creative tasks can be performed using programming. 2. Learners to use the programming methods learned over the last few lessons to make art. 3. Hackers to remix the challenges to add creative flair!	

Lesson: PIXEL HACK - Designers, Artists, Animators	Time: 1 hr 15 min
Intro: Recap last session. Optional: Have kids read reflections from their Engineering journals. **[Optional]** Have volunteers choose their favorite image from the web. Break down 1 or 2 pictures together. **Get the group excited** - they'll be web designers today!	10 mins
Intro to Pixel Hack - Get going! Learners will code in a real programming language in order to create original artwork in the pixel art style used in popular video games, such as Minecraft. They'll learn about how pixels are the building blocks of images, and how they can then weave these building blocks together to tell a story. Upon completion, students will print out a certificate that includes their favorite picture. All of the coding in Make Art is done in CoffeeScript—a powerful variant of JavaScript, the language behind the web. For more information on this language and what you can do with it, look at the appendix for the Make Art library and the [CoffeeScript language documentation](#). Learners will find suggested remixes within each challenge, and teachers can see the remixes in the Content Manual - available from the Educator Resources at [pixelhack.kano.me](#). Suggested format: **1. Playing the challenge** Learners should be able to complete the challenge without explicit instruction, but possibly will need guidance. If anyone gets stuck, have them carefully re-read the instructions, and check the HINT button in the top-right corner. Remember - words must appear EXACTLY as they are shown, spaces and punctuation included. **2. Teaching the challenge** Choose a challenge and walk through each line together, potentially with a projector. Get suggestions from the class to hack together! (see below)	40 min

3. Hacking the challenge To help illustrate what each command does, learners are encouraged to use the number sliders and color picker to hack each command and make it their own. We also include fantastic suggested hacks after each challenge at the top of the screen, along with the accompanying code if you want to show how the hacks are created in the **Hacker's Guide: Content Manual** Each hack builds on the concepts taught in the challenge, and teaches a slightly more advanced topic focusing on intuition rather formal knowledge.	10 min within the class - hack together!
4. Sharing + Discovery When a learner is done with their work, they can then contribute it to the bigger Make Art community on Kano World. From there, their work is now a spark waiting to ignite a flurry of remixes and reinterpretations from other community members. **Have learners take a look at other creator's Kano World shares for inspiration at** http://world.kano.me/shares/art.	
Wrap-up: Students can share some of their favorite creations. Look at the code together with the class on the projector.	10 min
Kano kit cleanup.	5 min