STEAM Summer Camp - July 27th - 30th

Ice breakers:

1. Make a Kahoot! about STEAM and NCWIT (5 - 10 questions)
2. Zoom Bingo - Download a people bingo sheet, and share your screen. Ask if anyone meets the requirements on the sheet and participants can raise hands and write down the user names of anyone who also raised their hands.
3. I spy - Ask everyone to pick a fake background from their favorite movie. Now, using other participants' backgrounds, take turns, and look for something in someone else's background.

Activities:

(Computer) Science: (Repl.it)
1. Python programming - Rosette/Spiral-[easy], Names-[medium], Number Guess-[medium], Encrypt-[hard] (example: Python - Number Guess (Booleans), Matching Cards Game)
2. HTML and CSS - About Me-[easy/medium] (All About Me), Photo Gallery-[medium](Photo Gallery)

Technology:
1. Arduino kits-[medium/hard] (Arduino Projects, Arduino.cc)
2. Binary Bracelets-[easy] (How to Make Binary Bracelets)

Engineering:
1. Hoop gliders (How to Make Hoop Gliders)
2. Catapults (How to Build a Catapult)
3. Bridge (How to Build a Bridge)
4. Spaghetti Towers (How to Build a Spaghetti Tower)

Art:
1. Flipbook: (Explaining Basic Animation (article), Stop Motion Movie, How to Make a Flipbook with Examples)
2. Crayon Resist Art: (Crayon Resist Art)
3. Dance Breaks: (Just Dance playlist)

Daily Schedule:

July 27th Day 1: Engineering

- 9:30 - 9:45: Sign-in & Pre-program survey
- 9:45 - 10:25: Overview, Introductions, & Icebreaker
- 10:25 - 10:45: Engineering: Catapult (20 mins)
- 10:45 - 10:50: Break
- 10:50 - 11:20: Engineering: Bridge (30 mins)
- 11:10 - 11:35: Dance Break
- 11:35 - 11:40 Water break
- 11:45 - 12:30: Engineering: Hoop Gliders (15 mins) and Spaghetti Towers (30 mins)
- 12:30 - 12:45: What We Learned presurvey
- 12:45: Wrap-up & Sign-off

July 28th Day 2: Art & Computer Science

- 9:30 - 9:35: Sign-in & Welcome
- 9:35 - 9:50: Overview & GimKit
- 9:50 - 10:20: Art: Flipbook (30 mins)
- 10:20 - 10:45: Crayon Resist Art (30 mins)*
- 10:45 - 11:00: Dance Break
- 11:00 - 11:40: HTML & CSS - Introduction
- 11:40 - 12:00: Guest Speaker
- 12:00 - 12:05: Break
- 12:05 - 12:35: Computer Science: HTML & CSS - (maybe start About Me)
- 12:35 - 12:40: What We Learned
- 12:40 - 12:45: Wrap-up & Sign-off

*If they finish early, have a longer break

July 29th Day 3: Computer Science

- 9:30 - 9:35: Sign-in & Welcome
- 9:35 - 9:45: Overview & Kahoot!
- 9:45 - 10:45: Computer Science: About Me project
- 10:45 - 11:00: Break - Watch the Ewy Rosqvist von Kroff video
- 11:00 - 11:30: Guest Speaker
- 11:30 - 11:50: Dance Break
- 11:50 - 12:35: Computer Science: Python
- 12:35 - 12:40: What We Learned

- 12:40 - 12:45: Wrap-up & Sign-off

July 30th Day 4: Technology

- 9:30 - 9:35: Sign-in & Welcome
- 9:35 - 9:45: Overview & NearPod
- 9:45 - 10:45: Python
- 10:45 - 11:00: Break
- 11:00 - 12:00: Arduino Projects
- 12:00 - 12:20: Dance Break
- 12:20 - 12:25: Binary Bracelets
- 12:25 - 12:30: What We Learned
- 12:30 - 12:45: Wrap-up & Post-program Survey