Need to bring:
Posters for each kid
Art supplies (scissors, crayons, markers, etc.)
Screen cutouts
Button cutouts
Code.org secret words

Day 2: Brainstorming & Design

SLOs:
1. Brainstorm at least three fully developed ideas for apps, including an app title, a proposed solvable problem, and a target audience.
2. Select one app idea and justify why this app is important to them before moving on to planning and constructing the app.
3. Participate in unplugged activities such as paper prototyping, wireframing, and mind mapping in order to prepare for their app design and coding.

(5 min) Snack and getting settled

Review last time:
What did we do last time?
- Talked about apps. What are apps?
- Listed our favorite apps
- Researched our favorite apps and decided what we liked about them
- Decided what made apps "good"

Show infographic of our favorite apps from last time (Socrative)
Can someone tell me which app is our group's favorite? How did you figure that out? What evidence is there?

Today will be busy! We will do 3 things:
1. Think of at least 3 app ideas.
2. Talk to each other and pick our 1 favorite app idea that we would like to develop.
3. Start designing our app.

So… what is the first step in the design process? (guesses)

Like we discussed LAST time, the first step is defining a problem.

Successful designs (and apps) exist to solve a problem. Let's talk about some of the apps we researched last time:
- What problems did they solve?
- Who were those apps for? (What was the audience?)

Show poster boards and explain process
- As we work together, you'll each keep track of your progress on your own poster.
- Each of these sections is a different phase in the process. I know that they're all different sizes. The bigger parts will take a bit longer, and we'll have more stuff to include there.
- The first step today will be filling in your "problem" you'd like to define. I'll work alongside you if you would like some inspiration! Your problem doesn't have to be set in stone. This isn't supposed to look beautiful, it's supposed to show your thought process.

IDENTIFY PROBLEM Watch first clip of video (through 1:05)
After watching:
So what was the *problem* or *need* here? (time to discuss)

Now: you are going to name at least three problems or needs that you wish an app could solve. You have **5 minutes** to think of these needs. They don't have to be perfect, just try to get your ideas out on paper.

- Each participant will get a poster-board. They can use crayons, markers, pencils, etc. to draw or write about 3 needs they would like to define. The needs should go on the brainstorming section of their poster. <u>They should use stickers or markers to circle their 1 favorite need that they would like to work on.</u>
- Once the 5 minutes are up, students can share their need to the group if they would like to and if there is time.

BRAINSTORM Watch second clip of video (1:05-2:05)
Now, with your circled problem/need, you are going to spend time thinking of app ideas.

You have 10 minutes to brainstorm at least 3 ideas that solve your problem. (1 idea is not enough, I challenge you to come up with 3.)

<u>You can brainstorm however you want, but some ways that work for me are:</u>
Mind maps
Lists
Free drawing/Free writing

10 minute timer

How could an app solve this problem?
Things to keep in mind: Who is your app for? What might you name this app? (Audience)
- Distribute scrap paper, art supplies, etc.
- Make mind maps, doodle, free write
- Can draw on poster board or on paper and then tape on poster board

DESIGN Watch last clip of video (2:05-2:35)

So… what test should your design idea pass?

NUF
New, Usable, Feasible (can you make it? Is it realistic)

~7-10 min to talk about paper prototyping
We're going to spend the rest of today paper prototyping!

(If time, show video) In this video, you'll get to see people who actually work for Google and use paper to design software, like apps!
Video (~2:00-5:10)

What were some of the tips shared in this video?
1. Simulate user flow-- make your app so it is usable for YOUR audience. Each screen should go together and flow back and forth.
2. Use screens over and over again! Don't make something again if it's ready for you. Use my templates and buttons to go faster!
3. Use color!

4 screens only!

Time to work on paper prototypes. Test prototypes with each other to optimize design.

Next time: we will start making our screens in Code.org's App Lab
(If time, give demo of design in App Lab)