

### Day 3: Design in App Lab

**Last time:** students identified a problem, brainstormed solutions to that problem, and started paper prototyping their 4 screens for their apps.

Key points to reiterate→

- Apps must be NUF (New, Useful, and Feasible.) Does this already exist? Would people actually use it? Can I make this during Tech Time?
  - Many of the apps thought of last time are VERY complicated. Some kids need to pare down their ideas so that they can accomplish them in our allotted time. \*Apps can only take 4 screens to begin with\*

**Today:** students will finish their paper prototypes and start to translate their designs into App Lab.

#### **Student learning objectives:**

**Differentiate** between design interface and code.

**Design** a beginning maximum of *4 screens* in App Lab that utilizes buttons, images, and text in order to illustrate their app idea.

- **Summarize** what design features App Lab provides and hypothesize about how they might use them in their apps.
- **Drag and drop** buttons, labels, text, and screens into their apps in order to enhance their designs.
- **Add** text, use color, and upload images into their apps in order to personalize their designs.
- **Label** design elements with an element ID in order to practice organizational skills during the app building process.
- **Utilize** design features in App Lab that reflect their brainstorms and preliminary sketches.

Plan for day 3:

5 min: Snack (there are snacks in a box tucked in the back of the makerspace under a red construction paper sign that says App Authors/Tech Time)

5 min:

Review last time, focus on the idea of NUF (new, useful, and feasible). Remind students that their app should be pretty simple to start off with

- 4 screens only. This means if you have a game or something with multiple levels, focus on 1 level only.
- All apps must have a beginning and an end. Users (people who use apps) must be able to navigate, or move between, screens.

Goals for today:

- Get set up in App Lab.
- Finish designing 4 screens in App Lab.

10 min:

Before chromebooks, watch video about App Lab Design mode:

[https://www.youtube.com/watch?time\\_continue=2&v=-EoTeD4mSNU](https://www.youtube.com/watch?time_continue=2&v=-EoTeD4mSNU)

(Start around 2:30)

Discussion questions:

- What are users?
- What is a user interface?
- If an app is designed, will it work? What is the difference between code mode and design mode? (important to emphasize that fully designed apps might look great, but without code, they will not work. The code is the brain of the app.)

10 min:

Setup on chromebooks--

Login

Go to <http://studio.code.org/sections/ZDIPWF>

Each student has a password on individual yellow cards.

If you need to login to my teacher page on Code.org:

Username: [laurenmichaelgray@gmail.com](mailto:laurenmichaelgray@gmail.com)

Password: AppAuthors!

We might have a new student today, Joslin. If she comes, her password for Code.org is: happened bill

20-30 minutes (whatever time allows for):

Design in App Lab

Students should practice adding screens, buttons, text, etc.

Students should practice changing the colors of these elements

Students should practice giving their design elements IDs that they will remember for coding

Students should work on their designs until they feel satisfied.

Early finishers can start coding their apps. Check out this tutorial for some basic coding tips:

<https://www.youtube.com/watch?v=tDnoxkOSfQw>

**With 10 minutes left:**

Students should complete this end of the day reflection. We didn't have time to get to this last time, so it is really important that they get to this today if possible:

We used this once before, so hopefully they will be into it:

1. Go to [socrative.com](https://socrative.com)
2. Select student login
3. Room name: APPAUTHORS
4. Answer 3 questions

Then, close chromebooks, put away, and see ya next time! :-)