**Document #3**

Example BITS Play Package

**Snap Circuits BITS Program**

Snap Circuits are electronic kits that teach participants how to build different types of electrical circuits.

Program time: 2 hours

Hi everyone, in today’s program we are going to be working with Snap Circuits. You’ll learn to build all sorts of electronic devices like a radio, solar powered lights and a lie detector. The whole idea of this program is to give you time to try things out, see what you can do, and get some ideas about how electronic circuits work. So, don’t worry about getting it right all the time. Have fun and see what happens.Also, feel free to work in groups on something and ask each other for ideas, help, etc. At different times during the program I’ll give you all a chance to show-off to the group what you’ve been working on and ask questions or give suggestions. Before you get started I want to give everyone a chance to get to know each other. I’m going to get us started with a short group introduction activity.

Play time: 5 minutes

Play #2: **Community Builder**

Would you Rather?

Ask youth to answer a set of “would you rather” questions. For example:

Would you rather go on vacation to a hot or cold place?

Would you rather eat pizza or a hamburger?

Would you rather learn about how cars work or how airplanes work?

Would you rather build websites or robots?

Would you rather have a 3D printed piece of chocolate or a model car?

Would you rather record music or record video?

Make sure assisting youth (interns/volunteers) take part in the Community Builder.

Play time: 10 minutes

Play #3: **Introduction to Materials**

Show the electronic kits to youth.

Talk about the components that make up a circuit.

Build a quick example circuit as a group. Encourage youth participation.

Talk about kit best practices and safety.

Play time: 15 minutes

Play #4: **Challenge 1**

Have youth divide into small groups.

Challenge: Build a Snap Circuit rover that shoots discs 10 feet.

Give each group the components needed to take on the challenge.

Play time: 20 minutes

Play #5: **Check-in with Group**

Ask what surprising things they’ve noticed so far.

Encourage assisting youth to engage with participants and encourage participants to walk around and see other group creations/ask questions.

Play time: 15 minutes

Play #6: **Challenge 2**

Challenge 2: Now that participants have an understanding of the components of circuit building, have them create their own challenges for others in the group.

Play time: 20 minutes

Play #7: **Showcase**

Youth try each other’s challenges. Encourage explanations/questions.

Play time: 15 minutes

Play #8: **Reflection**

One Word

At the end of the session bring everyone back together and ask the youth to describe their learning experience in one word. If the youth would like to, you could have them use a visual instead of text. For example, they could take a photo that describes their experience, create a drawing, create a GIF, and so on.

Play time: 15 minutes

## Bits Play Packages

Below you will find samples of how to put Plays together for a Bits program.

**LittleBits Bits Program** (2 hours)

* Welcome - 5 minutes
* Community Builder: Stand Up - 10 minutes
* Introduction to materials - 15 minutes
* Challenge: Build a flashlight with LittleBits - 20 minutes
* Check-in with group by showing off their creations, talking about what they like and don’t like about what they built so far, and asking them to modify - 15 minutes
* Challenge 2: Modifying creations - 20 minutes
* Showcase: Youth show what they modified and talk about what they did differently and why – 15 minutes
* Reflection: Photo Op - 15 minutes

**Station-Based Bits Program** (2 hours)

* Welcome - 5 minutes
* Community Builder: If…. - 10 minutes
* Introduction to/Overview of materials - 15 minutes
* Youth select what they want to work with to start - 5 minutes
* Challenge 1: Pick one cool thing you can do with the materials and be ready to share what you made with others - 20 minutes
* Check in with the youth and have them showcase what they discovered - 15 minutes
* Challenge 2: Youth can either move on to another area or continue where they are. Whether they are starting at a new station or continuing at the same station, have youth build on what they figured out so far by adding something new to their learning. - 20 minutes
* Showcase: During the second challenge, have youth show and discuss what they’ve each learned and worked on. 15 minutes
* Reflection: Exit Ticket - 15 minutes

### Explore Playbook Packages

Below you will find samples of how to put Plays together for an Explore program.

**Audio Recording Explore Program** (2 hours)

* Welcome - 5 minutes
* Community Builder: What makes a great recording - 15 minutes
* Audio Recording Overview/Demonstration - 20 minutes
* Challenge 1: Have youth select a pre-recorded story and record sound effects for that story. Make sure to provide time for the youth to plan their sound effects before starting to record them. - 20 minutes
* Reflection: Have the youth play their sound effects and ask for feedback and ideas on how to improve them or change them - 15 minutes
* Demonstrate how to add the sound effects to their stories - 15 minutes
* Challenge 2: Edit the recordings in order to add the sound effects - 20 minutes
* Reflection: Have youth play their edited stories and talk about what they changed and what they like about what they did - 10 minutes

**Legos Explore Program** (2 hours)

* Welcome - 5 minutes
* Community Builder: In small groups, have youth build the tallest object they can in 3 minutes using the Legos they have in front of them. Have groups look at each other’s structures and talk about why some work better than others. - 15 minutes
* Challenge 1: Build a Balloon Powered Car - 10 minutes
* Reflection: Have the groups’ cars race each other and talk about why some went further than others.
* Challenge 2: Make a Better Balloon Powered Car - 15 minutes
* Reflection: Have the groups race each other and talk about what changed and what works better or worse - 15 minutes
* Challenge 3: Have each group come up with a challenge for the other teams to try out - 15 minutes
* Challenge 4: Have each group try out one of the other team’s challenges - 15 minutes
* Showcase: Have groups show each other how they did with the challenges and what was easy or hard to do and why - 15 minutes
* Reflection - Craziest thing to do with Legos and voting - 15 minutes