Club Plans
Music and Sound

Club Plans offer step-by-step instructions for Gurus and Hosts, including optional scripts.

Please note:
On their first day, club members must visit cs-first.com/go, click "Enter Club Code" and follow the directions to be assigned to your theme and club. New club members will receive a username and password. Returning club members may reuse their username and password. Each theme and club have a different club code. Your club codes can be found at www.cs-first.com/dashboard.

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Activity 1: Introduction and Discovery

Overview
The structure of this first activity allows club members to: establish a club culture, understand the scope of the club, learn CS First procedures, and begin to explore the Scratch programming interface. After club members learn about club expectations, they will explore Scratch and create their first program.

Volunteer Focus
- Create a welcoming and inclusive environment.
- Build a positive relationship with club members.
- Ensure that club members have a positive first experience with Scratch.

Agenda Summary

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Topics Introduced
- CS First club culture and procedures
- Navigating to, signing in, and creating with Scratch

Topics Reinforced
- Persistence
- Working Together
Preparation

Important: Club members need your unique club code to sign in to www.cs-first.com/go. The agenda timer will display your unique code during the "Log-in" portion of today's activity, or you can find it by signing in and visiting www.cs-first.com/dashboard.

- Turn on all computers.
- Place passports on a table near the doorway.
- Place at each workstation:
  - 1 pair of headphones
  - 1 pen/pencil
  - 1 sticky note on the monitor [optional]
- Display the agenda timer. The agenda timer shows the time allotted to each section of an activity and advances as the club progresses to ensure that there is adequate time for members to complete all agenda items. The timer plays a sound as it advances to each item. Display the agenda timer on a projector (if one is available) or on the most visible computer in the room.
- To ensure an inclusive and welcoming club environment, limit available computers to enrollment plus three additional computers (so the last member to enter the room still has a seat choice). For example, if there are 20 members enrolled, limit seating to 23 computers grouped near each other. Post stickies on the monitors of computers to show they are available, or turn over the keyboards of unavailable ones. You will still need to remind members when they enter where they can and cannot sit.
- Prepare to fill out roster. Your club dashboard (www.cs-first.com/dashboard) stores all usernames and passwords created for your club, but it does not store student names. While members are working, walk around and record usernames, passwords, and names, so you can fill out the roster for your records.
- Hang G+ poster in a visible location. [optional]

Agenda

Welcome to CS First! (3 minutes)

1. Greet members at the door as they arrive.
   - Hello and welcome to CS First!

2. Ask members to pick up a passport and sit at an available computer.
   - Everyone please pick up a passport, and go to an available computer.

3. Once all members are seated, semi-privately ask those who are sitting alone to move to a computer near other members.
   - You need to sit near others to work on today's project. Would you mind moving to a seat where you can interact with other club members?

4. Stand at the front of the room and raise a hand (the CS First silent signal) to get member attention. Wait to proceed until you have all members' attention. If you don't have the full attention of all members after 7 seconds, repeat the request. Finally, make an indirect request to the remaining members.
   - [hand raised] Everyone please turn off your monitors, and direct your attention up here. [if needed after 7 seconds] I need everyone's monitors off and attention up here before we can start. [if needed after an additional 5 seconds] I'm still waiting on 2 members before we can begin... okay great!
1. Introduce yourself/selves.
   [example] Welcome to CS First! I am Mr. Smith, and I volunteered to help out with this Google CS First club. I teach eighth grade math, and in my free time I like to read.

2. Introduce and define Computer Science.
   CS First is a computer science club. Raise your hand if you can tell me what computer science is. [possible responses: programming, coding, creating things with a computer, solving problems.] One way to define computer science is "Creating programs and solving problems using a computer.

3. Introduce the CS First theme.
   In this CS First club, you're going to build [name of theme] themed projects in the programming language Scratch. To do that, you'll use the CS First website to watch instructional videos, and you'll code your projects on the Scratch website. You'll build a new computer program in each of the eight activities for this club.

4. Describe the agenda.
   To find out what you'll be doing during today's activity, take a look at the agenda. We already covered the welcome and the introductions. Next, I'll go over your passports. Then, you'll learn how to use the CS First website. After signing in, you'll take a short survey and start programming in Scratch.

5. Ensure that all club members have a CS First Passport.
   You should have grabbed a CS First Passport when you came in. If you don't have one, please raise your hand, and I'll bring one to you. [wait]

6. Ask club members to hold off writing in the passport until after the introduction.
   While I go over what's inside this passport, follow along. Please do not write anything inside until I ask you to do so.

7. Introduce sign-in information.
   Open to the first page. Here, you'll see a place for your username and password. When you log in to your computer, you'll go to www.cs-first.com/go to receive this information. Writing your sign in information here is very important. During that time, you'll also fill out the 'About Me' section on the same page.

8. Introduce the club activity pages.
   There is a page for each club activity. These pages describe the project you'll build and include a place for the badge you'll earn for that activity.

9. Introduce shout-outs. [optional]
   If you flip towards the back, you'll find a section to hold shout-outs. Shout-outs are positive words of encouragement written to you on a sticky note. After they've gone on the G+ board, you can store them in your passport.

10. Ask club members to write their names on their passports.
    Finally, these passports can also be name tents [hold the passport up to show proper name orientation]. Please write your name in big letters on the passport now.

11. Ask for questions.
    Are there any questions about your passports before we move on?
Log In to Computers and Get CS-First Sign In Information (8 minutes)

1. Introduce cs-first.com.
   - In this club, you'll watch videos on cs-first.com to learn how to create the projects (or programs).

2. Introduce how to sign in.
   - To start today, you'll go to www.cs-first.com/go to receive a username and password. Once there, click the "enter club code" button. Enter the code for our club (found on your dashboard).

3. [for repeat clubs] Introduce sign-in process for repeat students.
   - If you've been in a CS First club before, you'll still enter the club code for this club. Then, follow the instructions to reuse your username and password.

4. Tell club members to write down their username and password, sign in, and begin watching the first video.
   - Once you have a username and password, write them down! You can then sign in and begin watching the first video for this activity. Follow the instructions in the videos for the rest of today's activity.

5. Re-iterate instructions.
   - Someone please raise your hand, and remind me what you need to do once you turn on your monitor. [1. Go to www.cs-first.com/go. 2. Click "Enter Club Code." 3. Follow instructions to get sign in and password. 4. Write down information. 5. Sign in and begin watching the first video.] If you forget what to do, the instructions are shown on the agenda timer.

6. Explain how to use sticky notes to ask questions. [optional]
   - If you have a question while signing in or at any time during this club, place a sticky note on your monitor. [demonstrate] This lets the me know that you have a question. So, before we start, please take down your sticky note and only put it back on your monitor if you have a question. [Wait until all stickies have been taken down]

7. Ask club members to begin.
   - Are there any questions before we start? [wait] Wonderful. You may begin.

8. Walk around the room to ensure that members are writing down their sign-in information.

9. Once club members have their sign in information, remind them to sign in and start watching the first video. If club members aren't redirected to the first video, ask them to click "view materials" and the club theme.
   - Now that you have your sign-in information, sign in and watch the first video.

Watch Video 1 and Complete the Survey (10 minutes)

- After members have signed in to cs-first.com they should begin watching the first video for the day. This video introduces a brief survey. Once members have finished the survey, they should switch back to cs-first.com and move on to the next video.
- During this time, it's important to circulate around the room. On day 1, many members may have difficulty pacing themselves and progressing through the club agenda.
- If members appear frustrated by the survey, tell them individually to try their best and that there are no right or wrong answers. It is more important for members to feel comfortable and welcome on the first day than to completely fill out the survey.

  How are you doing? [wait for response] Don't worry about getting all the answers right. It's the first day! Make your best guess and move on so you can get to the more exciting part, creating!
If club members have questions about the survey content, instruct them to make their best guess and let them know that it's okay to not know an answer.

Make your best guess, and move on. A lot of the questions on this survey are about things you'll learn about later in this club, so don't worry if you don't know the answers now.

Watch Video 2 and Create (5 minutes)

If members haven't finished the survey, encourage them to complete it and move on to the next video.

[to the whole club] If you are still working on the survey, please take a minute to finish it, then move on to the next video.

Members are asked to open a new Scratch project and sign in after they watch the second video. As you circulate around the room, check that members have signed in to Scratch (their username will appear in the top right corner of the project editor) and that they are moving on to the third video.

Club members should use the tabs on their internet browser to switch between the Scratch and CS First websites. If you notice club members struggling to do this, it may help to pause the group, and introduce switching between tabs to the whole club.

Watch Video 3 and Create (14 minutes)

After watching this video, members will have a chance to explore Scratch.

Walk around the room, and fill out member names on the club roster you received with your CS First materials. Members should have their passports out with their CS First IDs and names on them. If they don't, please ask the club members to take them out. If you notice club members haven't written their names on their passports, instruct them to do so now.

Hi. I'm filling out a roster so that I know everyone who is in the club. May I see your passport? Thank you.

During this time, circulate around the room and attempt to talk with each member individually. The first day is a great opportunity to begin building relationships with members. Talk with members about what they're working on, and support them if they have questions.

Can you tell me about what you've built? This looks cool; can you explain to me what it does? How are you doing?

Look for club members who are designing (adding sprites, backdrops, etc.), and encourage them to experiment with code.

I see that you've spent a lot of time designing this project. Do you have any plans for how you want to code it? Why don't you try experimenting with different blocks to see what you can make it do?

Members should post sticky notes when they have questions. Scan the room often to look for posted stickies, and offer help when you see one. If members raise their hands when they have a question, politely remind them to use a sticky next time. [optional]

Remember to post your sticky when you have a question, so you don't have to raise your hand.

Start Wrap-Up - Share Projects in Scratch (1 minute)

1. Introduce the CS First wrap-up procedure.

[silent signal] You'll end each activity by sharing your project in Scratch, showing your project to a neighbor, filling out a reflection, and watching a final video to wrap up.

2. Instruct club members to click the wrap-up button on CS First and to share their project in Scratch.
3. Walk around, and encourage club members who haven't shared their projects (the share button will still be visible in the top-right corner of the screen) to do so. If club members don't want to share, that's okay.

**Show Projects (3 minutes)**

1. Get everyone's attention using the silent signal.
   
   [silent signal] Can I have everyone's attention up here, please?

2. Introduce showing time.

   After you've shared your project in Scratch, you're going to spend the next two minutes showing your projects to your neighbor or neighbors. Turn to someone near you, and show them your project. Explain what your project does and what, if anything, you plan to add to it. When someone shows you his or her project, be positive, and discuss the things you like about it.

3. Prompt club members to begin showing projects.

   When showing time is complete, I'll give the silent signal again to get your attention. You have two minutes. You may begin showing.

4. After you tell club members to begin showing, walk around and ensure that everyone is showing their project to someone. If you see club members who are still working or who don't have a partner, encourage them to join another pair and show their work. If club members do not want to show their project, that's okay. However, they should still participate in this social aspect of the club by looking at fellow club members’ projects.

**CS First Reflection (2 minutes)**

1. Get everyone's attention using the silent signal.
   
   [silent signal] Can I have everyone's attention up here, please?

2. Transition club members back to their computers to reflect on what they learned during this activity.

   Thank you all for showing your wonderful projects. Now it's time for the CS First club reflection and wrap-up video. Go back to the CS First site, click the 'next' arrow, and complete the reflection, and watch the wrap-up video.

3. As club members transition back to computers, ensure that they are able to locate and complete the reflection.

4. During the next part of the club, while members watch the wrap-up video, you will award participation badges (stickers). It may be helpful to find them now in your CS First materials.

**Watch Wrap-Up Video (4 minutes)**

[Note: While club members watch the wrap-up video, walk around and give out the participation badges (stickers) from your club kit to each club member that was present for this activity.]

1. Prompt club members to complete the Club Reflection, then move on to the Wrap-Up video.
   
   [silent signal] After you've completed your reflection, click the 'next' arrow on CS First to watch the wrap-up video. While you're finishing these final steps, I'll walk around and award the participation badges for this activity.
2. Ask club members to write a shout-out for a clubmate. [optional]

   After watching the wrap-up video, write a positive note to a clubmate on your sticky note. Thank someone who helped you, or call out a great project. Once you've written a shout-out, come place it on the G+ board.

3. Circulate around the club, and pass out participation badges. Club members can stick the badges in their passports.
4. When the Agenda Timer indicates that 30 seconds remain in this section, remind club members about the time.

You have thirty seconds remaining until we move on.

**Club Discussion (4 minutes)**

1. Briefly review and highlight some G+ posts that club members made. [optional]

   Let's look at some of the G+ shout-outs that club members received for their work during this activity. [Read a few G+ shout-outs aloud].

2. Whole-club discussion

   Finally, let's discuss what you learned during this activity. [Read "discussion questions" from below].

3. Preview next activity.

   Next club is on [day of next club (e.g. Monday)], and you will build [description of project].

4. Facilitate dismissal by asking club members to wrap headphones and shut down computers [ask club members to either leave headphones at their seats or drop them off while exiting].

   At the end of each club, you'll be asked to wrap your headphones. To do this, hold the headphones flat, and wrap the cord around the ear pieces [demonstrate]. Everyone, please try this now. [wait] Once your headphones are wrapped, please place them at your seats. Once I see that all of your headphones are wrapped, we will all leave together. I look forward to working with you all again next time!

**Discussion questions:**

- What was your favorite part of this activity?
- What unexpected thing did you program?
- What blocks did you use in your project, and what did they do?

**Next club: Dance Party**

**After members have exited the room:**

- Collect all passports, headphones and unused stickies.
- Take down shout-outs from the G+ page and place them into their recipients' passports.
- Ensure that the computer lab is clean and that computers are in the state that the school prefers (i.e. shut down, monitor off, etc.).
- Turn off any equipment that you used (SMART Board, computer, etc).
- Turn off any lights and close door when leaving.
Activity 2: Dance Party

Overview
In this activity, club members will create a dance party animation. They will use forever loops and will be encouraged to tinker with the "movement" blocks. By the end of the activity, members will understand and be able to explain the similarities and differences between the "forever" and "repeat 10 times" blocks.

Volunteer Focus
- Encourage club members to talk with and help their fellow club members.
- Encourage members to work through difficult problems and to explore new solutions.
- Develop and maintain a club routine by closely following the club agenda.

Agenda Summary

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Topics Introduced
- Forever Block
- Wait Block
- Move and Glide Blocks
- Next Costume Block

Topics Reinforced
- Events
**Preparation**

- Turn on all computers.
- Place member passports on a table.
- Visibly hang G+ community poster.
- Place at each workstation:
  - 1 pair of headphones
  - 1 pen/pencil
  - 1 sticky note [optional]
- On a classroom projector, display the following in multiple tabs:
  - Club agenda timer
  - Showcase selector - Click the link at the top of this page to open the showcase selector in a new tab.

**Agenda**

**Introduction (5 minutes)**

1. Greet members at the door as they arrive.

   - Hi [name]. Welcome back!

2. Ask members to pick up their passports, then sit at an empty computer and log in.

   - Everyone please pick up your passports and go to a computer. Sign in to CS First and Scratch. Once you have logged in, please turn off your monitors.

3. Once all members are seated and logging in to their computers, privately ask members who are sitting alone to move to a computer near other members.

   - Hi [name]. Today you’re going to need to be sitting near others to work on this project. Would you mind moving to a seat where you’ll be able to interact with other club members?

4. Use the silent signal to get member attention.

   - [Silent signal] I need everyone’s attention up here please.

5. Have all members turn monitors off and remove headphones before starting. It is very important that you enforce this rule or members will use the computers instead of interacting.

   - Everyone please turn off your monitors so we can begin the introduction [wait for all members to turn off monitors].

6. Introduce the activity - A dance animation that introduces loops

   - Hello everyone! Today you will create a Dance Animation. This activity will introduce an important computer science concept: loops.

7. Introduce showcase selector.

   - At the end of this activity, and for each activity after that, we will select 2 projects to showcase on the projector at the beginning of the following club. So, the project that you create today could be showcased to everyone next club! Are there any questions about the showcase selection? [wait for questions]
Transition to Computer Time (2 minutes)

1. Introduce computer time.
   
2. Remind members to use a sticky note if they have a question. [optional]
   
3. Remind members that at the end of this activity you will pick a few projects to share next club.

4. Have members turn on monitors and navigate to CS First website.

5. If there are new club members, ask them to go to cs-first.com/firstday to watch an introductory video.

Watch Video 1 and Create (8 minutes)

Immediately after asking members to begin watching the first video:

- Answer questions promptly so members can get started on the activity. If members have questions about logging into a computer, please ask the club host for assistance.
- Go to a place in the room where you can see all of the monitors. Ensure that all members have begun to watch the first video. Look for members who are either not on the CS First site or who are watching the wrong video. Politely and privately redirect these members to the correct video.

Club members should watch the videos and build at their own pace. Some club members will work faster or slower than others. If you notice that club members are behind the timings in the agenda, work with them so that they’re able to finish that activity on time (the add-on selection page is not part of the core project). Periodically check for club members who are behind the timings in the agenda. Look at the video number on the CS First tab as an approximation of where a member is in their project.

Watch Video 2 and Create (10 minutes)

Interact with all members in the club. Your attention demonstrates you care. Try to interact with every member personally at least once per club session.

Hi [name], how’s it going? Can you show me what you've made so far? How did you make your project do that? That looks really good! Keep working hard on your project.

Check to ensure that members have signed in to Scratch by looking at the top right corner of their Scratch project editor. If you see their username, they are signed in. If you see a "Sign In" link, that member still needs to sign in. Members who haven't signed in will not be able to save their work.

I see that you haven't signed in. Please click sign in, and enter your sign-in information from your passport so that you can save your project.

Encourage members to take off their headphones after they have finished watching the video. This will better enable them to talk and help clubmates.

Hi [name]. When you aren't watching the videos, remember that it is okay to take your headphones off so you can talk with those around you about what you are coding.
Watch Video 3 and Create (10 minutes)

- Walk around the room to visit and talk with club members, especially those to whom you haven't spoken.
- Watch for sticky notes indicating a question.
- Identify members who are struggling with the "glide" block. Reference 0:57 in the video, where it explains how to use this block. Or, show members how to drag the sprite to a location, then drag out the "glide" block to mark that location.

Remind members to pace themselves using the Club Agenda.

*Everyone, remember to look up at the Club Agenda while you are working on this activity. Right now, you should be on Video [X]. Work hard to keep up with the agenda so you can finish your project. Don't get caught up in any one step for too long, like designing your project, sprites, or backdrops.*

If club members don’t have questions, it is still important to walk around the classroom and interact with everyone. The self-paced nature of CS First clubs ensures that you have time to work individually with club members even when questions aren’t being asked. Consider asking club members: “Can you tell me about what you’re working on?”; “How are you doing?”; “Wow that’s interesting! How’d you make it do that?”; “What’s your favorite part of your program/game/project so far?”

Watch Video 4 and Create (10 minutes)

- Depending on the computer lab's bandwidth, members may experience a delay when adding a music loop to their projects. Scratch will look like it is doing nothing, but if you wait, the sound will show up in the "sounds" tab.
- Watch for members using the "play sound" block instead of the "play sound until done" block. If members choose the "play sound" block, the sound will stutter or not play at all.

Choose Add-Ons and Create (0 minutes)

During this time, members customize their projects by trying some add-ons. Add-ons allow members to explore programming concepts and features as they follow the guidance and instruction in the videos.

1. Walk around, and encourage members to try the add-ons that interest them.

   *It looks like you've finished the core videos. That's great! Move to the next page to learn about different ways to customize your project.*

2. Help members navigate the add-ons menu.

   *"When you click "watch," the add-on will open. To go back to the add-on selection screen, just click on the X at the top of the video."*

3. If you notice that members have not saved or shared their projects (You will see a "See project page" button in the top right corner of the project editor on projects members have shared.), encourage them to do so before they continue working on add-ons.

   *I see that you're working on the add-ons. Be sure to save your project, and click "Share" to make it available to the Scratch community.*

Start Wrap-Up- Share Projects in Scratch (1 minutes)

1. Ask the club to begin the wrap-up procedures by clicking the wrap-up button (next to the number buttons below videos) in CS First and sharing their projects in Scratch.

   *[Silent signal] It's time to wrap up your projects. Click the wrap-up button, which can be found next to the number buttons below each video, and begin to follow the wrap-up procedures. Your first step will be to share your project...*
2. Walk around and encourage club members who haven’t shared their projects (the share button will still be visible in the top-right corner of the screen) to do so. If club members don’t wish to share, that’s okay.

Show Projects (3 minutes)

1. Get everyone’s attention using the silent signal.

   [Hand raised] Can I have everyone’s attention up here, please?

2. Introduce showing time.

   You’re going to spend the next two minutes showing your projects to your neighbor or neighbors. Turn to someone near you, and show them your project. You can explain what your project does and what, if anything, you plan to add to it. When someone shows you their project, be positive, and discuss the things you like about it.

3. Prompt club members to begin showing projects.

   When showing time is complete, I’ll give the silent signal again to get your attention. You have two minutes. You may begin showing.

4. After you tell club members to begin showing, walk around the club and ensure that everyone is showing their project to someone. If you see club members who are still working or who don’t have a partner, encourage them to join another pair and show their work. If club members do not want to show their project that’s okay. However, they should still take part in this social aspect of the club by looking at fellow club members’ projects.

CS First Reflection (2 minutes)

1. Get everyone’s attention using the silent signal.

   [silent signal] Can I have everyone’s attention up here, please?

2. Transition club members back to their computers to reflect on what they learned during this activity.

   Thank you all for showing your wonderful projects. Now it’s time for the CS First club reflection and wrap-up video. Go back to the CS First site, click the ‘next’ arrow, and complete the reflection, and watch the wrap-up video.

3. As club members transition back to computers, ensure that they are able to locate and complete the reflection.

4. During the next part of the club, while members watch the wrap-up video, you will award participation badges (stickers). It may be helpful to find them now in your CS First materials.

Watch Wrap-Up Video (4 minutes)

[Note: While club members watch the wrap-up video, walk around and give out the participation badges (stickers) from your club kit to each club member that was present for this activity.]

1. Prompt club members to complete the Club Reflection, then move on to the Wrap-Up video.

   [silent signal] After you’ve completed your reflection, click the ‘next’ arrow on CS First to watch the wrap-up video. While you’re finishing these final steps, I’ll walk around and award the participation badges for this activity.

2. Ask club members to write a shout-out for a clubmate. [optional]

   After watching the wrap-up video, write a positive note to a clubmate on your sticky note. Thank someone who helped you, or call out a great project. Once you’ve written a shout-out, come place it on the G+ board.
3. Circulate around the club, and pass out participation badges. Club members can stick the badges in their passports.
4. When the Agenda Timer indicates that 30 seconds remain in this section, remind club members about the time.

You have thirty seconds remaining until we move on.

Select Showcases (1 minutes)

1. Display showcase selector on board (follow the link at the top of this club plan).
2. Get everyone’s attention using the silent signal and request that club members turn off their monitors. Ensure that all monitors are turned off before beginning (club members won’t need to use their computers again during this club).

[Hand raised] Everyone please turn your monitors off and direct your attention up here.

3. Explain showcase selector.

This is the showcase selector. At the end of each activity, we’ll pick two projects to showcase at the beginning of next club. If your project is selected, we’ll display it up here on the projector next club and everyone will get a chance to enjoy it!

4. Run the showcase selector.

Let’s get excited! Let’s press the "Choose a Showcase!" button and see who gets selected! And we have…

CSF###!

5. Using the club roster, find and say the names of the club members selected.

Wonderful! CSF### is... [name]! I’m really looking forward to seeing [member names] projects next club.

6. Remind members to share their project.

If you were one of the members selected, make sure that we’ll be able to see your project by clicking the share button at the top of the project editor. If you didn’t do that for this project, make sure you do it first thing at the start of next club.

7. Tell members what to do if they don’t want their project shown.

If you were selected, but you don't want your project shown next club, please see me after this club or before the beginning of next club.

Club Discussion (4 minutes)

1. Briefly review and highlight some G+ posts that club members made. [optional]

Let’s look at some of the G+ shout-outs that club members received for their work during this activity. [Read a few G+ shout-outs aloud].

2. Whole-club discussion

Finally, let’s discuss what you learned during this activity. [Read "discussion questions" from below].

3. Preview next activity.

Next club is on [day of next club (e.g. Monday)], and you will build [description of project].

4. Facilitate dismissal by asking club members to wrap headphones and shut down computers [ask club members to either leave headphones at their seats or drop them off while exiting].

At the end of each club, you’ll be asked to wrap your headphones. To do this, hold the headphones flat, and wrap
the cord around the ear pieces [demonstrate]. Everyone, please try this now. [wait] Once your headphones are wrapped, please place them at your seats. Once I see that all of your headphones are wrapped, we will all leave together. I look forward to working with you all again next time!

Discussion questions:

- What was your favorite part of this activity?
- What do loops do in computer science? [Make something happen over and over again]
- How did you use loops in your project?

Next club: Musical Art

After members have exited the room:

- Collect all passports, headphones and unused stickies.
- Take down shout-outs from the G+ page and place them into their recipients' passports.
- Ensure that the computer lab is clean and that computers are in the state that the school prefers (i.e. shut down, monitor off, etc.).
- Turn off any equipment that you used (SMART Board, computer, etc).
- Turn off any lights and close door when leaving.
Activity 3: Musical Art

Overview
In this activity, club members will create a colorful collage by programming a repeating pattern. Then, they will make the colors in the collage play a sound when the mouse touches them.

Volunteer Focus
- Use the club agenda timer to help club members stay on track.
- Encourage club members to work through difficult problems.
- Encourage persistence and hard work, rather than speed of completion.

Agenda Summary

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<td>Club Discussion</td>
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</tbody>
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Topics Introduced
- Conditionals ("if-then" block)
- "Sensing" block

Topics Reinforced
- Events
- Movement
Preparation

☐ Turn on all computers.
☐ Place member passports on a table.
☐ Visibly hang G+ community poster.
☐ Place at each workstation:
  ☐ 1 pair of headphones
  ☐ 1 pen/pencil
  ☐ 1 sticky note [optional]
☐ On a classroom projector, display the following in multiple tabs:
  ☐ Club agenda timer
  ☐ Showcase selector- Click the link at the top of this page to open the showcase selector in a new tab.
  ☐ Projects to showcase- Using the table at the bottom of the showcase selector, open the appropriate club member project pages and find the correct project. If you cannot find the project, ask the member to check if they shared the project (they can see this by signing in and clicking "My Stuff").

Agenda

Introduction (5 minutes)

1. Greet members at the door as they arrive.
   - Hi [name]. Welcome back!

2. Ask members to pick up their passports, then sit at an empty computer and log in.
   - Everyone please pick up your passports and go to a computer. Sign in to CS First and Scratch. Once you have logged in, please turn off your monitors.

3. Once all members are seated and logging in to their computers, privately ask members who are sitting alone to move to a computer near other members.
   - Hi [name]. Today you’re going to need to be sitting near others to work on this project. Would you mind moving to a seat where you’ll be able to interact with other club members?

4. Use the silent signal to get member attention.
   - [Silent signal] I need everyone’s attention up here please.

5. Have all members turn monitors off and remove headphones before starting. It is very important that you enforce this rule or members will use the computers instead of interacting.
   - Everyone please turn off your monitors so we can begin the introduction [wait for all members to turn off monitors].

6. Review previous club.
   - Can someone please raise their hand and tell me what we worked on last club? [Dance Party] What block makes something happen over and over again? ["forever or "repeat" block.] What block might you use if your sprite is moving or changing costumes too quickly? ["wait" block.]

7. Introduce the Musical Art activity, which uses "sensing" blocks and conditional statements.
   - Today you will create a Musical Art Project. This project will introduce an important computer science concept: conditional statements.
View Showcase Projects (3 minutes)

[For instructions on finding and selecting showcases, see the "Preparation" section of this club plan. Remember that club members can opt out of having their projects shown. If none of the selected club members want to showcase their projects, you may ask for two volunteers to show their projects.]

1. Transition to showcase.

   [Pointing at agenda] Before we begin programming this activity, let's view the member showcases selected at the end of last club. We will play each project, look at the code, and then applaud how awesome the project is. Let's look at the first member project!

2. Run first project and discuss.

   Someone please raise your hand and tell me what types of blocks you think might be used in this project?

3. Look at code by clicking the "See Inside" button.

   Let's take a look at the code used in this project. [Show code and mention a few of the blocks used in the project.]

4. Cheer and clap.

   Wow! Amazing! That was a great project! Let's give them a great big round of applause!

5. Repeat steps for any additional projects.

Transition to Computer Time (2 minutes)

1. Introduce computer time.

   [show agenda] Now, we're going to move into the computer time.

2. Remind members to use a sticky note if they have a question. [optional]

   If you have a question during this time, ask your neighbors for help. If they can't help you, put a sticky note on your monitor and I will come help you.

3. Remind members that at the end of this activity you will pick a few projects to share next club.

   Remember that at the end of this activity we will pick a few people's projects to show at the beginning of next club.

4. Have members turn on monitors and navigate to CS First website.

   Please turn on your monitors, go to the CS First website, and start watching the first video.

5. If there are new club members, ask them to go to cs-first.com/firstday to watch an introductory video.

   If today is your first time in this club, please begin by going to cs-first.com/firstday to watch the short introductory video.

Watch Video 1 and Create (8 minutes)

Immediately after asking members to begin watching the first video:

- Answer questions promptly so members can get started on the activity. If members have questions about logging into a computer, please ask the club host for assistance.
- Go to a place in the room where you can see all of the monitors. Ensure that all members have begun to watch the first video. Look for members who are either not on the CS First site or who are watching the wrong video. Politely and privately redirect these members to the correct video.

Check that members have opened the starter project (The Solution Sheet shows an example of a blank starter project.).

I see that you've watched the first video and were able to get to Scratch. That's great! Next, open a starter project. To do
Club members should watch the videos and build at their own pace. Some club members will work faster or slower than others. If you notice that club members are behind the timings in the agenda, work with them so that they’re able to finish that activity on time (the add-on selection page is not part of the core project). Periodically check for club members who are behind the timings in the agenda. Look at the video number on the CS First tab as an approximation of where a member is in their project.

Watch Video 2 and Create (12 minutes)
Look for club members who are designing (adding sprites, backdrops, etc.), and encourage them to experiment with code.

- Club members might struggle with the idea of x and y coordinates. Look for club members whose stamped pattern does not cover the whole screen when the code is run, and encourage them to increase their x and y coordinates. To cover the whole stage, they should use -240 and 240.
- To help club members understand why their stamp does/does not fill the stage, encourage them to tinker with the value in the "repeat X" block.

When members struggle to remember the code that they saw in the video, or when you see members switching often between the video and their Scratch project, remind them that they can use the hint-sheets as a resource.

Remember [name], you can also use the hint-sheets to help you with the code for this project.

Watch Video 3 and Create (15 minutes)

- Circulate around the club, and speak to club members individually.
- Watch for sticky notes indicating a question.
- Often club members need to add a forever loop around the "go to mouse pointer" block in order to make the program continue to run.

Right now you start your program by clicking the green flag and telling the sprite to go to the mouse pointer. How do you think you would tell the computer to keep the sprite following the mouse pointer forever? Drag in a "forever" loop from the control menu. Now, try adding that to your code and see what happens.

- Make sure club members understand they need one "If-then" block for each color they use, and that they can duplicate the blocks by right-clicking on the code stack.
- Notice club members who have only a few "if" statements in their code. They might not understand how to duplicate code or select the color for the "sensing" block.

Hey [name]- How's it going? I notice you have some sensing blocks here for the different colors in your program. Have you figured out how to duplicate your code? Just right-click and choose "duplicate" [watch club member duplicate code]. Awesome. Now, if you click on the color block, then click on the color you want on stage, you can program your new sound to play when this color is touched. Great work - I'll check back in with you in a few minutes [check back in with club member in a few minutes- praise them for progress and/or encourage troubleshooting].

- Club members may have trouble selecting the color. They need to click the color box, wait for the hand icon, then click on the color they want to match. This step presents a great opportunity to encourage persistence.

Choose Add-Ons and Create (0 minutes)
During this time, members customize their projects by trying some add-ons. Add-ons allow members to explore programming concepts and features as they follow the guidance and instruction in the videos.
1. Walk around, and encourage members to try the add-ons that interest them.

   It looks like you've finished the core videos. That's great! Move to the next page to learn about different ways to customize your project.

2. Help members navigate the add-ons menu.

   "When you click "watch," the add-on will open. To go back to the add-on selection screen, just click on the X at the top of the video."

3. If you notice that members have not saved or shared their projects (You will see a "See project page" button in the top right corner of the project editor on projects members have shared.), encourage them to do so before they continue working on add-ons.

   I see that you're working on the add-ons. Be sure to save your project, and click "Share" to make it available to the Scratch community.

Add-Ons Overview (See "Cheatsheet" for Solution Code):

- **Change Instrument and Tempo**: Club members make their musical art piece change instruments and tempo when the yellow "X" sprite touches different colors.
- **Make it Melodic with a Chord**: Club members will make their project play chords, not just individual notes.
- **Easter Egg Surprise**: Club members will add a color to their art piece that plays a surprising sound when touched.
- **Color Changing Sprite**: Club members will make the yellow "X" sprite change colors, depending on what color it is touching.
- **That's So Random!**: Club members will create another yellow "X" sprite that plays random notes as it moves around their art piece.
- **Sprite Trail**: Club members will create the illusion of a color-changing trail that follows the yellow "X" sprite across the screen.

---

Start Wrap-Up- Share Projects in Scratch (1 minutes)

1. Ask the club to begin the wrap-up procedures by clicking the wrap-up button (next to the number buttons below videos) in CS First and sharing their projects in Scratch.

   [Silent signal] It's time to wrap up your projects. Click the wrap-up button, which can be found next to the number buttons below each video, and begin to follow the wrap-up procedures. Your first step will be to share your project on Scratch. Remember to name your project, and, if you'd like, write a description that explains how to use it. In one minute, you'll show your project to your neighbor.

2. Walk around and encourage club members who haven’t shared their projects (the share button will still be visible in the top-right corner of the screen) to do so. If club members don't wish to share, that's okay.

---

Show Projects (3 minutes)

1. Get everyone’s attention using the silent signal.

   [Hand raised] Can I have everyone’s attention up here, please?

2. Introduce showing time.

   You’re going to spend the next two minutes showing your projects to your neighbor or neighbors. Turn to someone near you, and show them your project. You can explain what your project does and what, if anything, you plan to add to it. When someone shows you their project, be positive, and discuss the things you like about it.
3. Prompt club members to begin showing projects.

   When showing time is complete, I’ll give the silent signal again to get your attention. You have two minutes. You may begin showing.

4. After you tell club members to begin showing, walk around the club and ensure that everyone is showing their project to someone. If you see club members who are still working or who don’t have a partner, encourage them to join another pair and show their work. If club members do not want to show their project that’s okay. However, they should still take part in this social aspect of the club by looking at fellow club members’ projects.

CS First Reflection (2 minutes)

1. Get everyone’s attention using the silent signal.

   [silent signal] Can I have everyone’s attention up here, please?

2. Transition club members back to their computers to reflect on what they learned during this activity.

   Thank you all for showing your wonderful projects. Now it’s time for the CS First club reflection and wrap-up video. Go back to the CS First site, click the ‘next’ arrow, and complete the reflection, and watch the wrap-up video.

3. As club members transition back to computers, ensure that they are able to locate and complete the reflection.

4. During the next part of the club, while members watch the wrap-up video, you will award participation badges (stickers). It may be helpful to find them now in your CS First materials.

Watch Wrap-Up Video (4 minutes)

[Note: While club members watch the wrap-up video, walk around and give out the participation badges (stickers) from your club kit to each club member that was present for this activity.]

1. Prompt club members to complete the Club Reflection, then move on to the Wrap-Up video.

   [silent signal] After you’ve completed your reflection, click the ‘next’ arrow on CS First to watch the wrap-up video. While you’re finishing these final steps, I’ll walk around and award the participation badges for this activity.

2. Ask club members to write a shout-out for a clubmate. [optional]

   After watching the wrap-up video, write a positive note to a clubmate on your sticky note. Thank someone who helped you, or call out a great project. Once you’ve written a shout-out, come place it on the G+ board.

3. Circulate around the club, and pass out participation badges. Club members can stick the badges in their passports.

4. When the Agenda Timer indicates that 30 seconds remain in this section, remind club members about the time.

Select Showcases (1 minutes)

1. Display showcase selector on board (follow the link at the top of this club plan).

2. Get everyone’s attention using the silent signal and request that club members turn off their monitors. Ensure that all monitors are turned off before beginning (club members won’t need to use their computers again during this club).

   [Hand raised] Everyone please turn your monitors off and direct your attention up here.

3. Transition to the showcase selector.

   It’s time to select showcases for next club. Let’s get excited!

4. Run the showcase selector.
Here we go! Let's press the "Choose a Showcase!" button and see who gets selected! And we have… CSF###!

5. Using the club roster, find and say the names of the club members selected.

Wonderful! CSF### is... [name]! I'm really looking forward to seeing [member names] projects next club.

6. Remind members to share their project.

If you were one of the members selected, make sure that we'll be able to see your project by clicking the share button at the top of the project editor. If you didn't do that for this project, make sure you do it first thing at the start of next club.

7. Tell members what to do if they don't want their project shown.

If you were selected, but you don't want your project shown next club, please see me after this club or before the beginning of next club.

Club Discussion (4 minutes)

- Briefly review and highlight some G+ posts that club members made.
  
  Let's look at some of the G+ shout-outs that club members received for their work during this activity. [Read a few G+ shout-outs aloud].

- Lead whole-club discussion.
  
  Finally, let's discuss what you learned during this activity. [Read "discussion questions" below].

- Preview next club.
  
  Next club is on [day of next club (e.g. Monday)], and you will build [description of project].

- Exit.
  
  Once your headphones are wrapped up and your computers are shut down, we will all leave together. I look forward to working with you again next club!

Discussion questions:

- What was your favorite part of this activity?
- How did you use "if" statements? [Example response: I told my sprite to make a noise "if" it touched a certain color. It controlled what happened or did not happen in my program.];
- How did you use a "forever" or "repeat" block? [Example Response: Once the green flag was clicked, I had my "X" sprite follow the mouse pointer forever. Also, I had my other "If statements" run forever to test if different colors were touched by the sprite.

Next Activity: Musical Talent Show with a Badge Activity Scavenger Hunt

After members have exited the room:

- Collect all passports, headphones and unused stickies.
- Take down shout-outs from the G+ page and place them into their recipients' passports.
- Ensure that the computer lab is clean and that computers are in the state that the school prefers (i.e. shut down, monitor off, etc.).
- Turn off any equipment that you used (SMART Board, computer, etc).
- Turn off any lights and close door when leaving.
Activity 4: Guru Introduction and Musical Talent Show

Overview

In this activity, club members will learn more about the CS First Gurus and earn badges by creating a Musical Talent show. A badge is a sticker club members receive for completing different tasks and challenges. Badges are located in the CS First materials.

Volunteer Focus

- Be positive, and award badges easily. Avoid treating earning badges as a "test" for club members.
- Make sure all club members are working towards and earning badges.
- Emphasize the importance of persistence over speed or quantity of badges earned. This activity should be about making club members feel proud and successful.
- Encourage club members to work together and ask questions.

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<td>Start Hunting Badges!</td>
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<td>Start Wrap-Up- Share Projects in Scratch</td>
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<td>Select Showcases</td>
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<tr>
<td>4</td>
<td>Club Discussion</td>
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Topics Introduced

- Topics introduced will vary depending on which badges students work on.
- Forever Loop and Sound
- Difference between coding a sprite and coding a backdrop

Topics Reinforced

- If Statements
- Loops
Preparation

☐ Turn on all computers.
☐ Place member passports on a table.
☐ Visibly hang G+ community poster.
☐ Place at each workstation:
  ☐ 1 pair of headphones
  ☐ 1 pen/pencil
  ☐ 1 sticky note [optional]
☐ On a classroom projector, display the following in multiple tabs:
  ☐ Club agenda timer
  ☐ Showcase selector- Click the link at the top of this page to open the showcase selector in a new tab.
  ☐ Projects to showcase- Using the table at the bottom of the showcase selector, open the appropriate club member project pages and find the correct project. If you cannot find the project, ask the member to check if they shared the project (they can see this by signing in and clicking "My Stuff").
☐ Make sure you have the sheets of rectangular badges (stickers) ready to distribute to club members. You can find these badges in your CS First shipped materials, or you can print them from your club dashboard.
☐ [Optional] Review the "Guru Introduction" section of the club plan with your fellow Guru, and decide which of you will interview first and what questions you will ask each other.

Agenda

Introduction (5 minutes)

1. Greet members at the door as they arrive.
   - Hi [name]. Welcome back!

2. Ask members to pick up their passports, then sit at an empty computer and log in.
   - Everyone please pick up your passports and go to a computer. Sign in to CS First and Scratch. Once you have logged in, please turn off your monitors.

3. Once all members are seated and logging in to their computers, privately ask members who are sitting alone to move to a computer near other members.
   - Hi [name]. Today you’re going to need to be sitting near others to work on this project. Would you mind moving to a seat where you’ll be able to interact with other club members?

4. Use the silent signal to get member attention.
   - [Silent signal] I need everyone’s attention up here please.

5. Have all members turn monitors off and remove headphones before starting. It is very important that you enforce this rule or members will use the computers instead of interacting.
   - Everyone please turn off your monitors so we can begin the introduction [wait for all members to turn off monitors].

6. Introduce the activity: A Musical Talent Show. Club members choose which badges they want to earn and put up a sticky when they think they have earned a badge.
   - Hello everyone! In this activity, you’re going to earn badges as you build a Musical Talent Show. As you complete the scavenger hunt and build the talent show, you’ll earn special badges, or stickers. Later, you’ll learn more about the specific challenges you have to complete to earn badges. [Optional] However, before we begin, we wanted to tell you about ourselves and let you ask us some questions so you get to know us a little bit better.
Guru Introduction/Interview (8 minutes)

[Optional] Guru Intro/Interview: Middle school is a time when students are building their identities, determining who they want to become, and thinking about what careers they might like to have in the future. They see careers like teachers, doctors, and police officers as part of their daily lives, but they may not have ever seen someone who has a career in or a deep passion for technology. CS First volunteers like you help expose students to adult role models who have passion for and confidence in technology. Club members will successfully envision themselves in your role if they can identify with you, so try to highlight the similarities you share in conversations. For example, you may have grown up in the same area, have the same number of siblings, or share the same favorite foods. Then, tell them about your first experience with computers. We have found that an "interview" format is a great way to share this information. If your club session has more than one Guru (and you may want to decide which interview questions you will use before the club begins), consider doing the following:

1. Club members turn monitors off: It is critical that all club member turn their monitors off for this section to encourage participation. Look around the room and ask for monitors off again if club members have monitors on. Wait for all members to comply.

   Please turn off your monitor. Once your monitor is off, please look up at us so we know when you have finished.

2. Guru 1 introduces the activity:

   We have really enjoyed working with you all so far in CS First and getting the chance to see your incredible Scratch creations. Today we're going to share a little more about ourselves and give you a chance to ask us questions, so start thinking about what you want to ask.

3. Guru 1 introduces Guru 2:

   As you know, <insert name of Guru 2> is a Guru in our club. <insert name of Guru 2>, tell us a little bit about yourself.

   1. Guru 2 just give a few sentences of background, focusing on ways that you are similar to your students and/or telling them about your passion for or job in technology.

   2. Guru 1 asks Guru 2 at least two questions and then opens it up for club members to ask questions. Club members may feel shy about asking questions, so you may have to wait in silence for up to a minute before someone will raise their hand. Feel free to build on a question asked by a club member.

   3. When 4 minutes have elapsed, Guru 2 should reverse the role and start interviewing Guru 1.

4. Close Activity:

   Thank you all for listening, paying attention, and asking such great questions. It really means a lot to us. Now, it's time to focus the attention back on you and take a look at the showcase projects! [pull up showcase projects and transition to next agenda item]

Sample Interview Questions/Discussion Topics:

1. Why is computer science important to you? How has it impacted your life?
2. What was your first experience with technology?
3. Can you tell me about a challenging or frustrating time that you had with technology or a device- what did you do?
4. Do you have any brothers or sisters?
5. What’s your favorite ice-cream flavor?
6. What sports do you like?
7. If you could magically invent anything, what would you invent?
8. Have you ever felt like an outsider to computer science or technology? What was that like? How did you get over that (if you did get over it)?
9. How have your computer science or technology skills helped you at work?
10. How do you use computers to be creative?
11. Have you ever taken a course online or on a computer, whether for general interest or job training? What do you think the future holds for learning on a computer?

12. What software programs do you use every day, and what did it take for you to learn them?

13. What got you interested in CS?

14. What most intrigues or excites you about the future when it comes to technology?

15. What was your first concert you’ve ever attended?

16. Describe a situation where you were really on an adventure/ you were adventurous.

17. What is the one thing that you would want the club members to know about computer science, if it was the only thing that club members remembered after CS First?

**View Showcase Projects (3 minutes)**

[For instructions on finding and selecting showcases, see the "Preparation" section of this club plan. Remember that club members can opt out of having their projects shown. If none of the selected club members want to showcase their projects, you may ask for two volunteers to show their projects.]

1. Transition to showcase.
   - [Pointing at agenda] Before we begin programming this activity, let's view the member showcases selected at the end of last club. We will play each project, look at the code, and then applaud how awesome the project is. Let's look at the first member project!

2. Run first project and discuss.
   - Someone please raise your hand and tell me what types of blocks you think might be used in this project?

3. Look at code by clicking the "See Inside" button.
   - Let's take a look at the code used in this project. [Show code and mention a few of the blocks used in the project.]

4. Cheer and clap.
   - Wow! Amazing! That was a great project! Let's give them a great big round of applause!

5. Repeat steps for any additional projects.

**Transition to Computer Time (2 minutes)**

1. Introduce computer time.
   - [show agenda] Now, we're going to move into the computer time.

2. Remind members to use a sticky note if they have a question. [optional]
   - If you have a question during this time, ask your neighbors for help. If they can't help you, put a sticky note on your monitor and I will come help you.

3. Remind members that at the end of this activity you will pick a few projects to share next club.
   - Remember that at the end of this activity we will pick a few people’s projects to show at the beginning of next club.

4. Have members turn on monitors and navigate to CS First website.
   - Please turn on your monitors, go to the CS First website, and start watching the first video.

5. If there are new club members, ask them to go to cs-first.com/firstday to watch an introductory video.
   - If today is your first time in this club, please begin by going to cs-first.com/firstday to watch the short introduction video.
Watch Video 1 and Create (8 minutes)

Immediately after asking members to begin watching the first video:

- Answer questions promptly so members can get started on the activity. If members have questions about logging into a computer, please ask the club host for assistance.
- Go to a place in the room where you can see all of the monitors. Ensure that all members have begun to watch the first video. Look for members who are either not on the CS First site or who are watching the wrong video. Politely and privately redirect these members to the correct video.

Start Hunting Badges! (19 minutes)

- Check in with members frequently, especially those who are not earning badges. Ask them about which badge they are working towards, look at their code, encourage them to keep building, and make suggestions. It's important for every club member to feel successful, and club members who earn no badges or who earn far fewer than others may feel bad or left out.
- When a club member earns a badge, congratulate him or her and comment on their fantastic code.
- When a member has earned a badge, peel off the sticker and give it to them. Club members can put badges in their passports or do whatever they like with them.
- Club members should put up their stickies to get your attention when they think they have earned a badge. These interactions are your chance to engage, encourage, and check for understanding. In this section, you will find descriptions of what is involved in earning each badge, and you can see code samples on the solution sheets. However, this is not about "testing" members to see if they get a badge. This activity should be a positive, encouraging experience. Even if the member's code doesn't quite do everything required, you can still support him or her in completing the code and earning a badge. The functionality some members build may differ from the code samples. That's OK, and those members can still earn the badge.
- If you aren't sure if a member has earned a badge and don't remember how to help them complete it, refer to the solution sheet or this club plan. If you still aren't sure, award them the badge and be supportive and warm. Always err on the side of being congratulatory and awarding the badge to build member confidence.
- Encourage members who are quickly earning a lot of badges to help out their other club members who may be having difficulty. However, refrain from praising speed, and instead focus on effort and persistence.

**Bust A Move Badge Requirements:** When the sprite is clicked, it should play music and change costumes or move forever until the spacebar or another key is pressed. Look for two "when this sprite clicked" blocks and one "when space (or other) key pressed" event in members' code. Watch for these common problems:

- Members use the "play sound" block instead of the "play sound until done" block, keeping the music from playing properly.
- Members put the "dance" and "play sound until done" blocks in the same code stack with the "when sprite clicked" block. This makes the sprite play music THEN dance, rather than dancing to the music. To solve this problem, have club members use two "when sprite clicked" blocks (one to control dancing/motion and the other to control sound).

**Energy Burst Badge Requirements:** When the sprite is clicked, it should move around the screen forever, bounce off the walls, and make a noise. Pressing a key should stop the the program (the example uses the spacebar). Look for two "when this sprite clicked" blocks and one "when space (or other) key pressed" event in members' code. Watch for these common problems:

- Members put the "play sound until done" block in the same forever loop with the movement blocks. This will make the sprite stop each time it tries to play the sound. Using two "when this sprite clicked" blocks (one to control sound, and one to control motion) will solve this problem.
- Members use the "play sound" block instead of the "play sound until done" block, which prevents the music from playing properly.

**Multiple Musicians Badge Requirements:** To earn this badge, there should be two or more sprites on the screen that do something when the mouse touches them. The example plays a note and changes color, but the club member can build any functionality he or she likes. Look for two "when flag clicked" blocks for each sprite and two or more sprites that
react when the mouse pointer touches them.

- **Clone Crazy Badge Requirements:** To earn this badge, the member should have a sprite on the screen that asks a question when clicked. The answer to the question will make the sprite clone itself and take some kind of action. In the example, the sprite clones itself, then plays random notes for each clone, but the member can build any functionality he or she likes. Problems to watch for:
  - Members are shown all code except the "do something unexpected" code that would make the clones do something. This code goes before the "wait 3 seconds" block. If the clones do nothing, encourage the member to place a block before "wait 3 seconds" to make the clones perform an action.

- **Music Promoter Badge Requirements:** To earn this badge, members need to fill out information in their Scratch profile. To validate that the member earns this badge, have them show you their profile page and discuss the content they added.

- **Talent Show Score Badge Requirements (Advanced):** To earn this badge, members add checkmarks that allow the user to vote on which sprite should win the Talent Show. The variable should increase each time a sprite’s checkmark is clicked.

- **Talent Show Winner Badge Requirements (Advanced):** To earn this badge, members make one sprite announce the winner of the talent show when the vote count reaches a certain level.

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**Start Wrap-Up - Share Projects in Scratch (1 minutes)**

1. Ask the club to begin the wrap-up procedures by clicking the wrap-up button (next to the number buttons below videos) in CS First and sharing their projects in Scratch.

   ![Silent signal] It’s time to wrap up your projects. Click the wrap-up button, which can be found next to the number buttons below each video, and begin to follow the wrap-up procedures. Your first step will be to share your project on Scratch. Remember to name your project, and, if you’d like, write a description that explains how to use it. In one minute, you’ll show your project to your neighbor.

2. Walk around and encourage club members who haven’t shared their projects (the share button will still be visible in the top-right corner of the screen) to do so. If club members don’t wish to share, that’s okay.

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**Show Projects (3 minutes)**

1. Get everyone’s attention using the silent signal.

   ![Hand raised] Can I have everyone’s attention up here, please?

2. Introduce showing time.

   You’re going to spend the next two minutes showing your projects to your neighbor or neighbors. Turn to someone near you, and show them your project. You can explain what your project does and what, if anything, you plan to add to it. When someone shows you their project, be positive, and discuss the things you like about it.

3. Prompt club members to begin showing projects.

   When showing time is complete, I’ll give the silent signal again to get your attention. You have two minutes. You may begin showing.

4. After you tell club members to begin showing, walk around the club and ensure that everyone is showing their project to someone. If you see club members who are still working or who don’t have a partner, encourage them to join another pair and show their work. If club members do not want to show their project that’s okay. However, they should still take part in this social aspect of the club by looking at fellow club members’ projects.
CS First Reflection (2 minutes)

1. Get everyone’s attention using the silent signal.
   [silent signal] Can I have everyone’s attention up here, please?

2. Transition club members back to their computers to reflect on what they learned during this activity.
   Thank you all for showing your wonderful projects. Now it’s time for the CS First club reflection and wrap-up video. Go back to the CS First site, click the ‘next’ arrow, and complete the reflection, and watch the wrap-up video.

3. As club members transition back to computers, ensure that they are able to locate and complete the reflection.

4. During the next part of the club, while members watch the wrap-up video, you will award participation badges (stickers). It may be helpful to find them now in your CS First materials.

Watch Wrap-Up Video (4 minutes)

[Note: While club members watch the wrap-up video, walk around and give out the participation badges (stickers) from your club kit to each club member that was present for this activity.]

1. Prompt club members to complete the Club Reflection, then move on to the Wrap-Up video.
   [silent signal] After you’ve completed your reflection, click the ‘next’ arrow on CS First to watch the wrap-up video. While you’re finishing these final steps, I’ll walk around and award the participation badges for this activity.

2. Ask club members to write a shout-out for a clubmate. [optional]
   After watching the wrap-up video, write a positive note to a clubmate on your sticky note. Thank someone who helped you, or call out a great project. Once you’ve written a shout-out, come place it on the G+ board.

3. Circulate around the club, and pass out participation badges. Club members can stick the badges in their passports.

4. When the Agenda Timer indicates that 30 seconds remain in this section, remind club members about the time.
   You have thirty seconds remaining until we move on.

Select Showcases (1 minutes)

1. Display showcase selector on board (follow the link at the top of this club plan).

2. Get everyone’s attention using the silent signal and request that club members turn off their monitors. Ensure that all monitors are turned off before beginning (club members won’t need to use their computers again during this club).
   [Hand raised] Everyone please turn your monitors off and direct your attention up here.

3. Transition to the showcase selector.
   It’s time to select showcases for next club. Let’s get excited!

4. Run the showcase selector.
   Here we go! Let’s press the “Choose a Showcase!” button and see who gets selected! And we have… CSF###!

5. Using the club roster, find and say the names of the club members selected.
   Wonderful! CSF### is… [name]! I’m really looking forward to seeing [member names] projects next club.

6. Remind members to share their project.
   If you were one of the members selected, make sure that we’ll be able to see your project by clicking the share
7. Tell members what to do if they don't want their project shown.

If you were selected, but you don't want your project shown next club, please see me after this club or before the beginning of next club.

**Club Discussion (4 minutes)**

- Briefly review and highlight some G+ posts that club members made.
- Let's look at some of the G+ shout-outs that club members received for their work during this activity. [Read a few G+ shout-outs aloud].
- Lead whole-club discussion.
- Finally, let's discuss what you learned during this activity. [Read "discussion questions" below].
- Preview next club.
- Next club is on [day of next club (e.g. Monday)], and you will build [description of project].
- Exit.

Once your headphones are wrapped up and your computers are shut down, we will all leave together. I look forward to working with you again next club!

**Discussion questions:**

- What was your favorite part of this activity?
- Who can tell me something cool they did to earn a badge?
- What is something you found to be very fun or surprising?
- Optional: Ask members to talk about something that was challenging that they then figured out. Start by talking about something you personally found challenging or by giving praise to someone you saw stick with something until they solved it.

**Next Activity: DJ Mixer Project**

After members have exited the room:

- Collect all passports, headphones and unused stickies.
- Take down shout-outs from the G+ page and place them into their recipients' passports.
- Ensure that the computer lab is clean and that computers are in the state that the school prefers (i.e. shut down, monitor off, etc.).
- Turn off any equipment that you used (SMART Board, computer, etc).
- Turn off any lights and close door when leaving.
Overview

In this activity, club members will choose a repeating loop of background music, make a slider that speeds up or slows down a sound, and create a keypress event that plays a single note.

Volunteer Focus

- Support members who are having difficulty creating the variable and making it into a slider.
- Encourage members who finish early to build add-ons and add more sound loops to their project.

Agenda Summary

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Topics Introduced

- Keypress event
- Variables (and using a slider)

Topics Reinforced

- Events
- Control Flow
- Conditional Statements
Preparation

- Turn on all computers.
- Place member passports on a table.
- Visibly hang G+ community poster.
- Place at each workstation:
  - 1 pair of headphones
  - 1 pen/pencil
  - 1 sticky note [optional]
- On a classroom projector, display the following in multiple tabs:
  - Club agenda timer
  - Showcase selector - Click the link at the top of this page to open the showcase selector in a new tab.
  - Projects to showcase - Using the table at the bottom of the showcase selector, open the appropriate club member project pages and find the correct project. If you cannot find the project, ask the member to check if they shared the project (they can see this by signing in and clicking "My Stuff").

Agenda

Introduction (5 minutes)

1. Greet members at the door as they arrive.
2. Ask members to pick up their passports, then sit at an empty computer and log in.
3. Once all members are seated and logging in to their computers, privately ask members who are sitting alone to move to a computer near other members.
4. Use the silent signal to get member attention.
5. Have all members turn monitors off and remove headphones before starting. It is very important that you enforce this rule or members will use the computers instead of interacting.
6. Discuss the last club. Can anyone tell me what we did last club? [Badge hunt activity]

   Can anyone name some badges you earned? Which blocks did you use?

7. Introduce the day's activity: DJ Mixer introduces "sensing" blocks and conditional statements. You can also explain variables and how they are used in technology, but the videos will cover this material.

   Hello everyone! In this activity you will create a DJ mixing tool. DJs use scratching techniques and digital mixing boards to build music. They incorporate sounds sampled from other songs and mix them into an underlying beat for people to dance to. Today you'll learn all about that along with an important computer science concept: Variables. You will use variables to mix up your beats by changing the timing of sound and music events.

View Showcase Projects (3 minutes)

[For instructions on finding and selecting showcases, see the "Preparation" section of this club plan. Remember that club members can opt out of having their projects shown. If none of the selected club members want to showcase their projects, you may ask for two volunteers to show their projects.]

1. Transition to showcase.
2. Run first project and discuss.
3. Look at code by clicking the "See Inside" button.
4. Cheer and clap.
5. Repeat steps for any additional projects.
Transition to Computer Time (2 minutes)

1. Introduce computer time.
2. Remind members to use a sticky note if they have a question. [optional]
3. Remind members that at the end of this activity you will pick a few projects to share next club.
4. Have members turn on monitors and navigate to CS First website.
5. If there are new club members, ask them to go to cs-first.com/firstday to watch an introductory video.

Watch Video 1 and Create (4 minutes)

Immediately after asking members to begin watching the first video:

- Answer questions promptly so members can get started on the activity. If members have questions about logging into a computer, please ask the club host for assistance.
- Go to a place in the room where you can see all of the monitors. Ensure that all members have begun to watch the first video. Look for members who are either not on the CS First site or who are watching the wrong video. Politely and privately redirect these members to the correct video.

Watch Video 2 and Create (10 minutes)

Interact with all members in the club. Your attention demonstrates you care. Try to interact with every member personally at least once per club session.

- In the videos for this activity, club members learn about how DJs use a consistent sound or repeating musical loop that underlies the entire track, then insert and play other sounds over that track. Students must choose a Music Loop, rather than a shorter sound.

  If you want a background track, it makes sense to have something that plays over and over again like a beat boxer. Therefore, you need to choose a music loop from the Scratch music menu instead of just a sound.

- Make sure students choose the "play sound until done" block instead of the "play sound" block. If the DJ mixer's sound stutters or does not play, check for the "play sound until done" block in the member's code.

  For a DJ to lay down a beat, he or she needs to create a steady, repeating background track. Sounds need to play until they are done, then start over again from the beginning to create a smooth background for the music to be mixed over.

- If the music only plays once, the club member needs to add a forever loop.

  You want your music to play continuously while the DJ is mixing on top of that track. To make that happen, place a forever loop around it to make it play over and over again.

Watch Video 3 and Create (10 minutes)

- Club members will add another sound that repeats when the flag is clicked. A "wait" block will control the time between the repeating sounds.
- Make sure club members do not get lost in the design step here. Also, they should choose a shorter "sound," rather than another musical loop.
- In this step, members should use the "play sound" block, rather than the "play sound until done" block they used in the previous step. Using the "play sound" block allows the club member to intentionally make the sound stutter if they prefer. However, the code will also work with the "play sound until done" block.
- Encourage the club member to add a "wait" block to space out the sounds. Encourage them to tinker and experiment with their code (while keeping an eye on the time).
Watch Video 4 and Create (13 minutes)

1. Club members often have problems changing the variable into a slider control. Remind them to double click the variable to make the slider.
2. Club members may be confused by setting up the variable where the speed = variable/10, so be ready to help them with this step.
3. Club members may be unsure what to name the variable or may think that the variable’s name dictates its action. Watch for members who appear stuck on this step, and help them understand that they should name the variable something that makes sense, but that the name of the variable does not affect its function.

Choose Add-Ons and Create (0 minutes)

Add-On 1: Adding More Samples involves downloading more music samples. If club members are having a hard time downloading and uploading on school computers, remind them that Scratch has a large sound library that they can choose from.

During this time, members customize their projects by trying some add-ons. Add-ons allow members to explore programming concepts and features as they follow the guidance and instruction in the videos.

1. Walk around, and encourage members to try the add-ons that interest them.
2. Help members navigate the add-ons menu.
3. If you notice that members have not saved or shared their projects (You will see a “See project page” button in the top right corner of the project editor on projects members have shared.), encourage them to do so before they continue working on add-ons.

Start Wrap-Up- Share Projects in Scratch (1 minutes)

1. Ask the club to begin the wrap-up procedures by clicking the wrap-up button (next to the number buttons below videos) in CS First and sharing their projects in Scratch.
2. Walk around and encourage club members who haven’t shared their projects (the share button will still be visible in the top-right corner of the screen) to do so. If club members don’t wish to share, that’s okay.

Show Projects (3 minutes)

1. Get everyone’s attention using the silent signal.
2. Introduce showing time.
3. Prompt club members to begin showing projects.
4. After you tell club members to begin showing, walk around the club and ensure that everyone is showing their project to someone. If you see club members who are still working or who don’t have a partner, encourage them to join another pair and show their work. If club members do not want to show their project that’s okay. However, they should still take part in this social aspect of the club by looking at fellow club members’ projects.

CS First Reflection (2 minutes)

1. Get everyone’s attention using the silent signal.
2. Transition club members back to their computers to reflect on what they learned during this activity.
3. As club members transition back to computers, ensure that they are able to locate and complete the reflection.
4. During the next part of the club, while members watch the wrap-up video, you will award participation badges (stickers). It may be helpful to find them now in your CS First materials.
Watch Wrap-Up Video (4 minutes)

[Note: While club members watch the wrap-up video, walk around and give out the participation badges (stickers) from your club kit to each club member that was present for this activity.]

1. Prompt club members to complete the Club Reflection, then move on to the Wrap-Up video.
2. Ask club members to write a shout-out for a clubmate. [optional]
3. Circulate around the club, and pass out participation badges. Club members can stick the badges in their passports.
4. When the Agenda Timer indicates that 30 seconds remain in this section, remind club members about the time.

Select Showcases (1 minute)

1. Display showcase selector on board (follow the link at the top of this club plan).
2. Get everyone's attention using the silent signal and request that club members turn off their monitors. Ensure that all monitors are turned off before beginning (club members won't need to use their computers again during this club).
3. Explain showcase selector.
4. Run the showcase selector.
5. Using the club roster, find and say the names of the club members selected.
6. Remind members to share their project.
7. Tell members what to do if they don't want their project shown.

Club Discussion (4 minutes)

- Briefly review and highlight some G+ posts that club members made.
- Lead whole-club discussion.
- Preview next club.
- Exit.

Discussion questions:

- What was your favorite sound you used for this activity?
- Can anyone tell me what a variable is? How did you use a variable in your project?
- What block did you use to make the music play continuously?

Next activity: In the next activity, you'll select a song and make an animated music video with cool effects you get to choose.

After members have exited the room:

- Collect all passports, headphones and unused stickies.
- Take down shout-outs from the G+ page and place them into their recipients' passports.
- Ensure that the computer lab is clean and that computers are in the state that the school prefers (i.e. shut down, monitor off, etc.).
- Turn off any equipment that you used (SMART Board, computer, etc).
- Turn off any lights and close door when leaving.
Activity 6: Music Video

Overview
In this activity, club members will create a music video using procedures, which are new commands made up of a set of instructions. To define a procedure in Scratch, club members will need to make a new block. They will also choose a song for their video and add a sprite that grows.

Volunteer Focus
- Make sure club members do not get lost in the "design" step.

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Topics Introduced
- Procedures
- Making a new block

Topics Reinforced
- If-then statements
- Events
- Control flow
Preparation

- Turn on all computers.
- Place member passports on a table.
- Visibly hang G+ community poster.
- Place at each workstation:
  - 1 pair of headphones
  - 1 pen/pencil
  - 1 sticky note [optional]
- On a classroom projector, display the following in multiple tabs:
  - Club agenda timer
  - Showcase selector- Click the link at the top of this page to open the showcase selector in a new tab.
  - Projects to showcase- Using the table at the bottom of the showcase selector, open the appropriate club member project pages and find the correct project. If you cannot find the project, ask the member to check if they shared the project (they can see this by signing in and clicking "My Stuff").

Agenda

Introduction (5 minutes)

1. Greet members at the door as they arrive.
2. Ask members to pick up their passports, then sit at an empty computer and log in.
3. Once all members are seated and logging in to their computers, privately ask members who are sitting alone to move to a computer near other members.
4. Use the silent signal to get member attention.
5. Have all members turn monitors off and remove headphones before starting. It is very important that you enforce this rule or members will use the computers instead of interacting.
6. Review previous club (DJ Mixer)

    Can someone please raise their hand, and tell me what we worked on last club?

7. Introduce the day's activity- Music Video

    In this activity, you'll create a music video. This activity will introduce an computer science concept: procedures. Procedures allow computer scientists to program several commands into just one instruction. In Scratch, this is done by making your own block.

View Showcase Projects (3 minutes)

[For instructions on finding and selecting showcases, see the "Preparation" section of this club plan. Remember that club members can opt out of having their projects shown. If none of the selected club members want to showcase their projects, you may ask for two volunteers to show their projects.]

1. Transition to showcase.
2. Run first project and discuss.
3. Look at code by clicking the "See Inside" button.
4. Cheer and clap.
5. Repeat steps for any additional projects.

Transition to Computer Time (2 minutes)

1. Introduce computer time.
2. Remind members to use a sticky note if they have a question. [optional]
3. Remind members that at the end of this activity you will pick a few projects to share next club.
4. Have members turn on monitors and navigate to CS First website.
5. If there are new club members, ask them to go to cs-first.com/firstday to watch an introductory video.

**Watch Video 1 and Create (10 minutes)**

In this video, students will watch an overview of the activity. They will also learn more about computer science and how it influences sound design.

Immediately after asking members to begin watching the first video:

- Answer questions promptly so members can get started on the activity. If members have questions about logging into a computer, please ask the club host for assistance.
- Go to a place in the room where you can see all of the monitors. Ensure that all members have begun to watch the first video. Look for members who are either not on the CS First site or who are watching the wrong video. Politely and privately redirect these members to the correct video.

**NOTE: The instructions for this video involve downloading sound clips. If club members have trouble downloading, use the Fallback Starter Project that contains preloaded songs. Club members can remix this project to access the preloaded songs, or they can use the Music Loops already included in the Scratch Sound Library.**

**Watch Video 2 and Create (25 minutes)**

Remind members to pace themselves using the Club Agenda.

If club members don’t have questions, it is still important to walk around the classroom and interact with everyone. The self-paced nature of CS First clubs ensures that you have time to work individually with club members even when questions aren’t being asked. Consider asking club members: “Can you tell me about what you’re working on?”; “How are you doing?”; “Wow that’s interesting! How’d you make it do that?”; “What’s your favorite part of your program/game/project so far?”

**Choose Add-Ons and Create (0 minutes)**

During this time, members customize their projects by trying some add-ons. Add-ons allow members to explore programming concepts and features as they follow the guidance and instruction in the videos.

1. Walk around, and encourage members to try the add-ons that interest them.
2. Help members navigate the add-ons menu.
3. If you notice that members have not saved or shared their projects (You will see a “See project page” button in the top right corner of the project editor on projects members have shared.), encourage them to do so before they continue working on add-ons.

**Start Wrap-Up- Share Projects in Scratch (1 minutes)**

1. Ask the club to begin the wrap-up procedures by clicking the wrap-up button (next to the number buttons below videos) in CS First and sharing their projects in Scratch.
2. Walk around and encourage club members who haven’t shared their projects (the share button will still be visible in the top-right corner of the screen) to do so. If club members don’t wish to share, that’s okay.

**Show Projects (3 minutes)**

1. Get everyone’s attention using the silent signal.
2. Introduce showing time.
3. Prompt club members to begin showing projects.
4. After you tell club members to begin showing, walk around the club and ensure that everyone is showing their project to someone. If you see club members who are still working or who don’t have a partner, encourage them to join another pair and show their work. If club members do not want to show their project that’s okay. However, they should still take part in this social aspect of the club by looking at fellow club members’ projects.
CS First Reflection (2 minutes)

1. Get everyone's attention using the silent signal.
2. Transition club members back to their computers to reflect on what they learned during this activity.
3. As club members transition back to computers, ensure that they are able to locate and complete the reflection.
4. During the next part of the club, while members watch the wrap-up video, you will award participation badges (stickers).
   It may be helpful to find them now in your CS First materials.

Watch Wrap-Up Video (4 minutes)

[Note: While club members watch the wrap-up video, walk around and give out the participation badges (stickers) from your club kit to each club member that was present for this activity.]

1. Prompt club members to complete the Club Reflection, then move on to the Wrap-Up video.
2. Ask club members to write a shout-out for a clubmate. [optional]
3. Circulate around the club, and pass out participation badges. Club members can stick the badges in their passports.
4. When the Agenda Timer indicates that 30 seconds remain in this section, remind club members about the time.

Select Showcases (1 minute)

1. Display showcase selector on board (follow the link at the top of this club plan).
2. Get everyone's attention using the silent signal and request that club members turn off their monitors. Ensure that all monitors are turned off before beginning (club members won't need to use their computers again during this club).
3. Transition to the showcase selector.
4. Run the showcase selector.
5. Using the club roster, find and say the names of the club members selected.
6. Remind members to share their project.
7. Tell members what to do if they don't want their project shown.

Club Discussion (4 minutes)

- Briefly review and highlight some G+ posts that club members made.
- Lead whole-club discussion.
- Preview next club.
- Exit.

Discussion questions:

- What was your favorite part of this activity?
- How do you make a new block in Scratch? [Go to the "More Blocks" menu, and make a new block.]
- What do you need to do before using your block? [You need to "define" your new block.]

Next activity: Movie Sound Effects and Music Composition

After members have exited the room:

- Collect all passports, headphones and unused stickies.
- Take down shout-outs from the G+ page and place them into their recipients' passports.
- Ensure that the computer lab is clean and that computers are in the state that the school prefers (i.e. shut down, monitor off, etc.).
- Turn off any equipment that you used (SMART Board, computer, etc).
- Turn off any lights and close door when leaving.
### Activity 7: Movie Sound Effects and Music Composition

#### Overview

In this activity, club members will choose to either create a project in which one sprite bounces off another to make a sound or to add to their Activity 6 Music Video Project.

#### Volunteer Focus

- Encourage club members to tinker and experiment.
- Encourage club members to work through difficult problems and to explore possible solutions.
- Encourage persistence and hard work, rather than speed of completion.
- Encourage club members to share their work.

#### Agenda Summary

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#### Topics Reinforced

- If/then statements
- Events
- Use of computer science in various fields
Preparation

- Turn on all computers.
- Place member passports on a table.
- Visibly hang G+ community poster.
- Place at each workstation:
  - 1 pair of headphones
  - 1 pen/pencil
  - 1 sticky note [optional]
- On a classroom projector, display the following in multiple tabs:
  - Club agenda timer
  - Showcase selector- Click the link at the top of this page to open the showcase selector in a new tab.
  - Projects to showcase- Using the table at the bottom of the showcase selector, open the appropriate club member project pages and find the correct project. If you cannot find the project, ask the member to check if they shared the project (they can see this by signing in and clicking "My Stuff").

Agenda

Introduction (5 minutes)

1. Greet members at the door as they arrive.
2. Ask members to pick up their passports, then sit at an empty computer and log in.
3. Once all members are seated and logging in to their computers, privately ask members who are sitting alone to move to a computer near other members.
4. Use the silent signal to get member attention.
5. Have all members turn monitors off and remove headphones before starting. It is very important that you enforce this rule or members will use the computers instead of interacting.
6. Review previous club [music video]

  Can someone raise their hand, and tell me what we worked on last club?

7. Introduce the day’s activity - Sound Effects and Composition OR continue to work on the Music Video project from Activity 6.

   Hello everyone! For this activity, you can choose between two different projects. The first choice is to create a movie sound effects project. In this project, sprites play a sound when they run into each other. This project reflects some of the ways that computer science is used in the movie industry. Your second choice is to continue to work on the music video that you created last club. If you choose to work on your project from last time, you will still sign into CS First and watch the first two videos.

8. Introduce Activity 7 survey.

   When you sign in to CS First, the first video will introduce a survey like the one some of you took during the first activity of the club. If you don't know an answer to a question, make your best guess. The survey will take about 8 minutes to complete.

View Showcase Projects (3 minutes)

[For instructions on finding and selecting showcases, see the "Preparation" section of this club plan. Remember that club members can opt out of having their projects shown. If none of the selected club members want to showcase their projects, you may ask for two volunteers to show their projects.]

1. Transition to showcase.
2. Run first project and discuss.
3. Look at code by clicking the "See Inside" button.
4. Cheer and clap.
5. Repeat steps for any additional projects.

Transition to Computer Time (2 minutes)

1. Introduce computer time.
2. Remind members to use a sticky note if they have a question. [optional]
3. Remind members that at the end of this activity you will pick a few projects to share next club.
4. Have members turn on monitors and navigate to CS First website.
5. If there are new club members, ask them to go to cs-first.com/firstday to watch an introductory video.

Watch Video 1 and Complete the Survey (10 minutes)

1. After members sign in to CS-First.com, they should begin watching the first video for the activity. This video introduces a brief survey. Once members have finished the survey, they should switch back to CS-First.com and move on to the next video.
2. If a member appears frustrated by the survey, particularly the Scratch content question, remind him or her to try their best and that there are no right or wrong answers. It is more important for members to feel comfortable giving their honest opinions.

   How are you doing? Don't worry about getting all the answers right. Make your best guess and move on so you can get to the more exciting part, creating!

Watch Video 2 and Create (7 minutes)

- After watching this video, club members will need to choose what they want to work on (Sound Effect Activity or Music Video Activity 6). As club members finish this video, check in with them individually, and discuss what they've chosen to work on. Look for club members who haven't decided what to work on, and help them make a decision.
- For the Sound Effect Activity, club members will remix the starter project (link on core video page), and add a new main character sprite.

Watch Video 3 and Create (10 minutes)

- In this video, club members will change the “touching” block to the name of their main character sprite. This will allow the projectile sprite to bounce off the main character. Then, they will add two more costumes to the projectile sprite, and add four sounds to use in the next video.
- Make sure club members do not get lost in the "design" step of choosing costumes for their main character and adding four sounds.

Watch Video 4 and Create (8 minutes)

- In this video, club members will add an if-then block to the “define make noise” stack, and create code that says "If the costume equals 1, then play a sound." They will do this for all four projectile sprites' costumes so each one will play a different sound.
- Students may be confused by having to "define" the "make noise" block. They might try to use the block before defining it. Remind club members of Activity 6, when they learned how to make blocks for their Music Video project. Potential Explanation:

   You need to define the block's procedure in order to make your program more efficient. It's like teaching a child how to tie their shoes. You don't need to describe every step every time--eventually children learn the "tie shoes" procedure to make life more efficient. In this way, you need to "teach" the computer how you want it to make noise.
Choose Add-Ons and Create (0 minutes)

Note: Add-On 2: Moving Backgrounds, involves downloading images. If club members are having a hard time downloading and uploading images on school computers, they can draw their own backgrounds in Scratch. To make the moving backgrounds flow nicely, club members’ drawings should start and end on the same level.

During this time, members customize their projects by trying some add-ons. Add-ons allow members to explore programming concepts and features as they follow the guidance and instruction in the videos.

1. Walk around, and encourage members to try the add-ons that interest them.
2. Help members navigate the add-ons menu.
3. If you notice that members have not saved or shared their projects (You will see a “See project page” button in the top right corner of the project editor on projects members have shared.), encourage them to do so before they continue working on add-ons.

Add-Ons Overview:

- **Movie Title and Credits:** Club members will create a title sprite with the “paint new sprite” button; use “motion,” “sound,” and “looks” blocks to make the title credits look, feel, and sound the way they want; and make the title credits roll before the rest of the project begins.
- **Moving Sea:** Club members will build scrolling sprite to use as a background, making the main sprite look like it is moving.
  
  Note: Make sure club members upload the background image as a sprite and not as a background.

- **Walking and Footsteps:** Club members will make their main sprite walk and add footstep sounds.
- **Sound Editing:** Club members will edit a recorded sound to add to their project.

Start Wrap-Up- Share Projects in Scratch (1 minutes)

1. Ask the club to begin the wrap-up procedures by clicking the wrap-up button (next to the number buttons below videos) in CS First and sharing their projects in Scratch.
2. Walk around and encourage club members who haven’t shared their projects (the share button will still be visible in the top-right corner of the screen) to do so. If club members don’t wish to share, that’s okay.

Show Projects (3 minutes)

1. Get everyone’s attention using the silent signal.
2. Introduce showing time.
3. Prompt club members to begin showing projects.
4. After you tell club members to begin showing, walk around the club and ensure that everyone is showing their project to someone. If you see club members who are still working or who don’t have a partner, encourage them to join another pair and show their work. If club members do not want to show their project that’s okay. However, they should still take part in this social aspect of the club by looking at fellow club members’ projects.

**CS First Reflection (2 minutes)**

1. Get everyone’s attention using the silent signal.
2. Transition club members back to their computers to reflect on what they learned during this activity.
3. As club members transition back to computers, ensure that they are able to locate and complete the reflection.
4. During the next part of the club, while members watch the wrap-up video, you will award participation badges (stickers). It may be helpful to find them now in your CS First materials.

**Watch Wrap-Up Video (4 minutes)**

[Note: While club members watch the wrap-up video, walk around and give out the participation badges (stickers) from your club kit to each club member that was present for this activity.]

1. Prompt club members to complete the Club Reflection, then move on to the Wrap-Up video.
2. Ask club members to write a shout-out for a clubmate. [optional]
3. Circulate around the club, and pass out participation badges. Club members can stick the badges in their passports.
4. When the Agenda Timer indicates that 30 seconds remain in this section, remind club members about the time.

**Select Showcases (1 minutes)**

*Note: This is the last showcase selection for the club. If you still have club members who have yet to be selected to showcase, you can ask them at the end of this activity if they would like a project to be shown in the last showcase.*

1. Display showcase selector on board (follow the link at the top of this club plan).
2. Get everyone’s attention using the silent signal and request that club members turn off their monitors. Ensure that all monitors are turned off before beginning (club members won’t need to use their computers again during this club).
3. Transition to the showcase selector.
4. Run the showcase selector.
5. Using the club roster, find and say the names of the club members selected.
6. Remind members to share their project.
7. Tell members what to do if they don’t want their project shown.

**Club Discussion (4 minutes)**

- Briefly review and highlight some G+ posts that club members made.
- Lead whole-club discussion.
- Preview next club.
- Exit.

**Discussion questions:**

- What was your favorite part of this activity?
- For those who chose to work on your music video, what features did you add to it?
- For those of you who worked on sound effects, how did you use If-then statements?
- What are some new things that you learned or discovered while working on your project?

Next activity: Create a Thank You Project
After members have exited the room:

- Collect all passports, headphones and unused stickies.
- Take down shout-outs from the G+ page and place them into their recipients' passports.
- Ensure that the computer lab is clean and that computers are in the state that the school prefers (i.e. shut down, monitor off, etc.).
- Turn off any equipment that you used (SMART Board, computer, etc).
- Turn off any lights and close door when leaving.
Activity 8: Create a Thank You Project and Free Time to Build

Overview

In this activity, club members will create a thank you project. They are encouraged to create and ask for help if they need it to complete their vision. This club ends with certificate distribution and a closing reflective discussion.

Volunteer Focus

- Ensure that club members find success in this final activity and that they leave CS First having had a positive final experience.
- Successfully close the club by handing out certificates and thanking club members for their participation.
- Encourage club members to share with their peers.

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<td>Watch Wrap-Up Video</td>
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<tr>
<td>10</td>
<td>Closing Discussion/CS First Last Activity Celebration</td>
</tr>
</tbody>
</table>

Topics Introduced

- Creating a Final Project
- Reflecting about CS First
- Music & Sound Experience

Topics Reinforced

- If Statements
- Loops
- Project-Based Learning
Preparation

- Turn on all computers.
- Place member passports on a table.
- Visibly hang G+ community poster.
- Place at each workstation:
  - 1 pair of headphones
  - 1 pen/pencil
  - 1 sticky note [optional]
- On a classroom projector, display the following in multiple tabs:
  - Club agenda timer
  - Showcase selector - Click the link at the top of this page to open the showcase selector in a new tab.
  - Projects to showcase - Using the table at the bottom of the showcase selector, open the appropriate club member project pages and find the correct project. If you cannot find the project, ask the member to check if they shared the project (they can see this by signing in and clicking "My Stuff").
- Prepare CS First Completion Certificates: You will receive a blank set of certificates for all club members who attend the final day of the club or who have attended regularly. For club members who have attended regularly but who miss the final day of the club, hand certificates to the club host to distribute later. To prepare certificates, write club member names (from club roster) on them and sign. To print your own certificates, visit your club dashboard.

Agenda

Introduction (5 minutes)

1. Greet members at the door as they arrive.
2. Ask members to pick up their passports, then sit at an empty computer and log in.
3. Once all members are seated and logging in to their computers, privately ask members who are sitting alone to move to a computer near other members.
4. Use the silent signal to get member attention.
5. Have all members turn monitors off and remove headphones before starting. It is very important that you enforce this rule or members will use the computers instead of interacting.
6. Review previous club (Movie Sound Effects and Music Composition).
7. Can someone please raise their hand and tell me what we worked on last club?
8. Introduce the day's activity.
   - Today, you'll have the opportunity to build a thank you project. Because this is the last activity of the club, you will watch fewer videos and spend more time creating.

View Showcase Projects (3 minutes)

[For instructions on finding and selecting showcases, see the "Preparation" section of this club plan. Remember that club members can opt out of having their projects shown. If none of the selected club members want to showcase their projects, you may ask for two volunteers to show their projects.]

1. Transition to showcase.
2. Run first project and discuss.
3. Look at code by clicking the "See Inside" button.
4. Cheer and clap.
5. Repeat steps for any additional projects.
Transition to Computer Time (2 minutes)

1. Introduce computer time.
2. Remind members to use a sticky note if they have a question. [optional]
3. Remind members that at the end of this activity you will pick a few projects to share next club.
4. Have members turn on monitors and navigate to CS First website.
5. If there are new club members, ask them to go to cs-first.com/firstday to watch an introductory video.

Watch Video 1 and Create (30 minutes)

- This video asks club members to build a thank you project for the Gurus and host. Creating a new project without guidance can be a challenge, so be sure to check in with club members individually and discuss what they're working on to provide guidance if needed.

Choose Add-Ons and Create (0 minutes)

During this time, members customize their projects by trying some add-ons. Add-ons allow members to explore programming concepts and features as they follow the guidance and instruction in the videos.

1. Walk around, and encourage members to try the add-ons that interest them.
2. Help members navigate the add-ons menu.
3. If you notice that members have not saved or shared their projects (You will see a “See project page” button in the top right corner of the project editor on projects members have shared.), encourage them to do so before they continue working on add-ons.

Start Wrap-Up- Share Projects in Scratch (1 minutes)

1. Ask the club to begin the wrap-up procedures by clicking the wrap-up button (next to the number buttons below videos) in CS First and sharing their projects in Scratch.
2. Walk around and encourage club members who haven’t shared their projects (the share button will still be visible in the top-right corner of the screen) to do so. If club members don’t wish to share, that’s okay.

Show Projects (3 minutes)

1. Get everyone’s attention using the silent signal.
2. Introduce showing time.
3. Prompt club members to begin showing projects.
4. After you tell club members to begin showing, walk around the club and ensure that everyone is showing their project to someone. If you see club members who are still working or who don’t have a partner, encourage them to join another pair and show their work. If club members do not want to show their project that’s okay. However, they should still take part in this social aspect of the club by looking at fellow club members’ projects.

CS First Reflection (2 minutes)

1. Get everyone’s attention using the silent signal.
2. Transition club members back to their computers to reflect on what they learned during this activity.
3. As club members transition back to computers, ensure that they are able to locate and complete the reflection.
4. During the next part of the club, while members watch the wrap-up video, you will award participation badges (stickers). It may be helpful to find them now in your CS First materials.
Watch Wrap-Up Video (4 minutes)

[Note: While club members watch the wrap-up video, walk around and give out the participation badges (stickers) from your club kit to each club member that was present for this activity.]

1. Prompt club members to complete the Club Reflection, then move on to the Wrap-Up video.
2. Ask club members to write a shout-out for a clubmate. [optional]
3. Circulate around the club, and pass out participation badges. Club members can stick the badges in their passports.
4. When the Agenda Timer indicates that 30 seconds remain in this section, remind club members about the time.

Closing Discussion/CS First Last Activity Celebration (10 minutes)

1. Get members’ attention.
   
   [Silent Signal] Can I please have everyone’s monitors off and eyes up here?

2. G+ shout-outs
   
   If you haven't already done so, it's time to bring up your G+ shout-out and post it to the G+ community poster.
   [wait] Awesome, I’m going to read a few of these shout-outs [read 3 shout-outs]. Take a look at the shout-outs that people wrote on your way out of the room today.

3. Transition into certificate distribution.
   
   For all your hard work in this club, each of you will receive a certificate for your successful completion of CS First Music and Sound. When I call your name, please stand up, walk to the front, shake both Gurus’ hands, and receive your certificate. Please hold your applause until everyone’s names have been called, then we will all clap and cheer together.

4. Call up club members individually to receive a certificate. Shake each club member's hand and thank him or her for participating.
5. After all members have been called up, ask for a round of applause.
   
   Can we have a round of applause for everyone?

6. Ask the reflection questions below.
   
   Let's all take a moment to reflect on what you've learned and enjoyed in CS First.

7. Tell club members that they can continue to work in Scratch and seek out CS opportunities after this club ends.
   
   After this club ends you can continue to work in Scratch. Your CS First username and password are yours to keep.

8. Encourage club members to look for CS courses in high school and college.
   
   If you've enjoyed what you've worked on in this club, seek out computer science courses and clubs in high school and college. With more exposure to computer science, you may find that computer science is a career that you want to pursue.

9. Tell club members that they get to keep their passports.
   
   When we exit today, take your passport home with you. The headphones however, should stay in the room.

10. Ask the class to say thank you to the program host.
    
    Before we exit, let's all say thank you to our program host for supporting this club.

11. Thank the club members for participating.
    
    Sample: Thank you all for participating in this club. I had a lot of fun and I learned a lot. I would like to wish you all
12. Dismiss the club.

13. High-five club members on their way out.

Reflection Questions:

- What was your favorite project that you made in this club and why?
- What was the most surprising thing that you were able to do?
- What was the most important thing that you learned about computer science?
- What do computer scientists do?
- Does anyone have any questions for me about what we’ve worked on in this club or about computer science in general?

After members have exited the room:

- Collect all passports, headphones and unused stickies.
- Take down shout-outs from the G+ page and place them into their recipients' passports.
- Ensure that the computer lab is clean and that computers are in the state that the school prefers (i.e. shut down, monitor off, etc.).
- Turn off any equipment that you used (SMART Board, computer, etc).
- Turn off any lights and close door when leaving.

the best in your future computer science endeavors!

Once I see that all computers are shut off and the headphones are wrapped, we'll exit. Remember to take your passports home with you today!