

**{ Make Beats. Learn Code. Promote Equity. }**

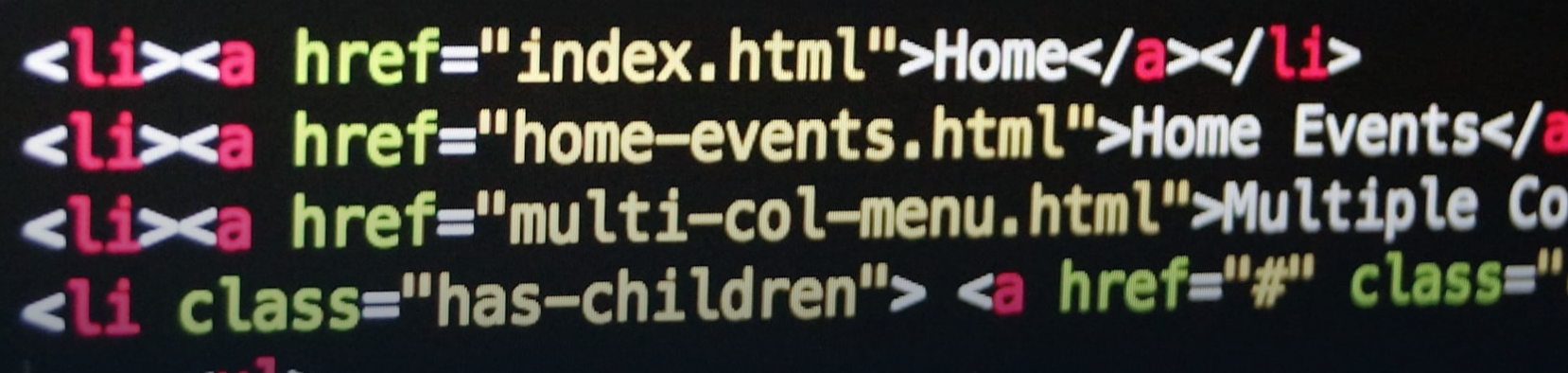
| **Music Producer:** |  |
| --- | --- |
| **Class:** |  |

| **Lesson Activities:** |
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| [Module 0: Introduction to EarSketch (Optional)](#_heading=h.1fob9te) [Kickoff Lesson: Your Voice is Power: Tell Your Story](#_heading=h.v1ac4nufo5wm)  [Module 1: Decode the Message in the Music](#_heading=h.3dy6vkm)  [Module 2: Layers of Injustice](#_heading=h.3rdcrjn)  [Module 3: Set Your Own Tempo](#_heading=h.35nkun2)  [Module 4: Song Structure - Every Person Plays a Part](#_heading=h.qsh70q)  [Module 5: Call to Action](#_heading=h.1pxezwc) |

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| Module 0: Introduction to EarSketch (*Optional)* |
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**Part 1: Connect Code and Music** 

**Directions:** Read one or more of these articles, and answer the big question. Make sure to cite at least one piece of evidence from the article.

**Why is coding important to the future of the music industry?**

| * [Why Every Band Needs a Computer Coder](https://www.redbull.com/ie-en/why-every-band-needs-a-computer-coder) | **My thoughts:**  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| --- | --- |
| * [Composing Code: Why Musicians Make Great Software Developers](https://www.huffpost.com/entry/composing-code-why-musici_b_10714288) |
| * [Composing in Code: Musician-Programmers are Changing the Way Music is Made](https://entertainment.howstuffworks.com/composing-code-musicianprogrammers-are-changing-the-way-music-is-made.htm) |

**Part 2: Compose and Code**

**Directions:**  Read the tutorial, and watch the video below to create an account in EarSketch and open a new script.

|  | [**Creating an Account Tutorial Sheet**](https://docs.google.com/document/d/145sCGq-W-CXEyyqosw5Yjt_he3Xse8XE3UXMZBbDg6w/edit?usp=sharing) |
| --- | --- |
|  | [**Account Creation Video**](https://drive.google.com/file/d/1qyYqlz2L5uw9fB-iDO4pR8DwnR-MqPSJ/view?usp=sharing) |

**Optional Warm Up**

**Directions:** Code Your Own Cha-Cha Slide! Using code or “functional notation,” you are going to code a dance, just like the Cha-Cha slide. On your paper, I want you to describe one dance move instruction on each line, using the following format:

**action(body part, direction, number of times).**

Come up with a dance that is at least 8 lines long.

| **Example:**   1. clap(hands,together, 8) 2. step(left foot, left, 1) 3. step(right foot, backward, 1) 4. hop(both feet, forward, 1) 5. hop(both feet, forward, 1) 6. stomp(left foot, down, 1) 7. chaCha(whole body, in place, 2) |
| --- |

| **Code Your Dance:** |
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**Part 3: Build Your Toolbox**

**Directions:** Record the key definition as you go through the lesson. You will need these words later!

| ***Learn Code.*** | | **Term:** | **Definition** | | --- | --- | |  | a process or set of rules to be carried out by a computer/person . Algorithms can be written with computer code |  | **Term:** | **Definition** | | --- | --- | |  | specialized computer software for recording, editing, and playing digital audio files |  | **Term:** | **Definition** | | --- | --- | |  | a series of instructions carried out in a specific order by a computer. | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

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**Part 4: Exploring DAWS**

**Directions**: Watch the video [“Producing from your Laptop”](https://www.theverge.com/2018/9/28/17874576/music-production-laptop-studio-producer), and answer questions below.

| **What are the advantages to producing music on a phone or laptop?** |  |
| --- | --- |
| **What DAW is Oak using?** |  |
| **How does the DAW help Oak produce music?** |  |
| **What is surprising about the Gospel Choir in Demi Lovato's song "Sorry not Sorry"?** |  |
| **How is technology the great equalizer?** |  |



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| YVIP 2022: Kickoff Lesson |
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**Part 1: Warm Up**

**Directions:** Watch the following two videos. As you watch, complete the **Know** and **Want to Know** columns of the chart below. Then, answer the questions that follow.

Video 1 - [Your Voice is Power Launch Video.](https://www.youtube.com/watch?v=RqVYUpdTvwA&feature=youtu.be)

**Part 1: Warm Up**

**Directions:** Watch the following video. As you watch, complete the **Know** and **Want to Know** columns of the chart below. Then, answer the questions that follow.

Video 1 - [Your Voice is Power Launch Video.](https://www.youtube.com/watch?v=RqVYUpdTvwA&feature=youtu.be)

| **Know**  What do you already know about music, computer science, and entrepreneurship? | | **Want to Know**  What do you want to know about music, computer science, or entrepreneurship? | | **Learned**  Complete this column on Module 5 to share what you have learned! |
| --- | --- | --- | --- | --- |
|  | |  | | You will submit your final learnings about **music, coding, and social justice** on Module 5. We can’t wait to see what you learn! |
| **What is the social/political/cultural landscape that the song describes?**  **What is the story the artist is telling?** | | | |
| *Entrepreneur:* | | | |  |
| *New Normal:* | | | |  |
| *Underdog:* | | | |  |

| Module 1: Decode the Message in the Music |
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**Part 1: Warm Up**

**Directions:** Watch [Pharrell’s Entrepreneur Video](https://www.youtube.com/watch?v=bTOoY5MIkvM) and reflect on his message and story. How is Pharrell elevating and celebrating groups of entrepreneurs? How does Pharrell’s song relate to the themes of Hip-Hop?

| **How does Pharrell tell a story in the song “Entrepreneur”?** |  |
| --- | --- |
| **Why do you think Pharrell cares about entrepreneurship?** |  |
| **Why would he create this song and music video? How did his choice of Entrepreneurs inspire you?** |  |
| ***How does Entrepreneur celebrate its community? What elements of Hip-Hop are present in Entrepreneur?*** | |
| ***Other notes/ideas about Entrepreneur*** | |

**Part 2: Decode the Message in the Music**

**Directions:** Complete the acrostic below as you watch [this video](https://www.youtube.com/watch?v=m-r8IfiJd1w&feature=youtu.be) introducing the OUTKAST Imagination featuring Dr. Joycelyn Wilson from Georgia Tech.

| **O** | mining for contemplation |
| --- | --- |
| **U** | Choosing to do the right thing… even when it’s unpopular |
| **T** | Awareness. Social, cultural, political, economic, and spiritual awareness. Stay Woke. |
| **K** | Knowledge of self, others, society, and spirit |
| **A** | Responsibility to self and others |
| **S** | Recognizing the order of things |
| **T** | Righteousness |

**Part 3: Decode Pharrell’s Message:** Verse 1

**Directions:** Listen to [the Intro Verse](https://drive.google.com/file/d/1ye3_Qy7XO1OoMIaHZRifZNoLcVfin7UV/view?usp=sharing). Then, try to decode each set of lyrics using the guiding questions to the right. When you’re done, [watch Dr. Wilson’s](https://www.youtube.com/watch?v=BNUK_BDCp3Y&feature=youtu.be) examination of the lyrics to see her analysis.

|  | What is Pharrell’s message? What elements of OUTKAST Imagination do you see? What does he mean? |
| --- | --- |
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**Part 4: Build Your Toolbox**

**Directions:** Follow along with your teacher to add the following key learnings to your toolbox.

| ***Promote Equity.*** | | **Term:** | **Definition** | | --- | --- | |  | The act of starting and operating a business or businesses, taking on financial risks in the hope financial profit or social impact | |  | The ability for all groups of people to experience the same quality of life. It includes taking any necessary actions to make sure that all groups of people get fair treatment and the right resources that enable them to thrive. |  | What is **racism?** | Class definition: | | --- | --- | | **My definition:**  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. | Racism is subtle and overt mistreatment, hurt, and harm (discrimination) against individuals or members of a group based on the color of their skin. It manifests in a variety of ways and impacts everyone differently. | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

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**Part 5: Code Your Message on EarSketch**

**It is time to apply your knowledge of messaging in music**

**Directions:** Use comments in a script on EarSketch to jot down your first reflections from today’s lesson.

| **Follow these instructions to get started in EarSketch:**   1. Go to [Earsketch.gatech.edu](https://earsketch.gatech.edu/landing/) 2. Click 3. Login to your EarSketch Account (*See directions here to create an account).* 4. Click 5. Name Your Script: *Your Voice is Power Initials* 6. Choose your coding language: Python or Javascript 7. Your new script is open in your code editor | You will view a sample script below. The **comments** in this script are signaled by the pound sign (#) and are in gray. These lines are not executed when you run your script. You can use comments to make notes in your code. You can also use comments to explain the purpose or message of your code. Click [here](https://earsketch.gatech.edu/earsketch2#?curriculum=1-1-4&language=python) to learn more about adding comments to your code. Think about comments as a way of providing hints to decoding. |
| --- | --- |

| ***Learn Code.*** | | **Term:** | **Definition** | | --- | --- | |  | Lines of code that are not executed by the computer that are used by programmers to make notes on their code. They are preceded by a # (pound) sign. Ex. #author, #add sounds | |
| --- | --- | --- | --- | --- | --- |

**Coding Directions:**

1. Edit the highlighted lines of code below to add your own comments.
2. Delete the lines of code in your EarSketch Script in your browser.
3. Copy and paste this code into your EarSketch Script in your browser.
4. Run your script using the green “Run” button on the top right of your code editor .
5. What do you notice?

| # python code # script\_name: YOUR VOICE IS POWER  # # author: YOUR NAME  # description: WRITE A SHORT DESCRIPTION  #  **from** earsketch **import** \*  init() setTempo(120)  print("This is the beginning of my script. Line 13 to be exact.")  #This line is going to print a sentence to the console.  #SOUND BANK VARIABLES # #INTRO  #VERSE  #CHORUS  #OUTRO  print("This is the end of my script. Line 40 to be exact.")  #This line is going to print a sentence to the console  finish() |
| --- |
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| Module 2: Layers of Injustice |
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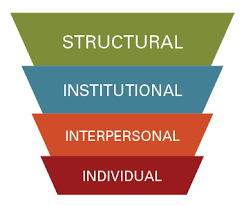
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**Part 1: Warm Up - Decode Pharrell’s Message**

**Directions:** Analyze  [Verse 1](https://drive.google.com/file/d/1j-wEtb_QwlcGFUThxb7bWlZRBECcNuAy/view?usp=sharing) according to the questions below. Then, watch [Dr. Wilson’s analysis.](https://www.youtube.com/watch?v=VZTXfglONJ8&feature=youtu.be)

Credit: Dr. Joycelyn Wilson, Georgia Tech, [HipHop2020.org](http://hiphop2020.org)

|  | 1. Which principle from the OUTKAST Imagination fits best with each pair of lines?. |
| --- | --- |
|  |  |
|  |
|  |
|  |
| 1. What message is being told through the whole verse? 2. How does the music/instrumentals add another layer to the message? | |



**Part 2: Build Your Toolkit- Defining the Layers of Racism**

**Directions:** Follow along with your teacher to add the following key learnings to your toolbox.

| ***Promote Equity.*** | | **Type of Racism:** | **Definition:** | **Examples:** | | --- | --- | --- | |  | Occurs between individuals as personal interactions |  | |  | Occurs within institutions and systems of power |  | |  | Racial bias among institutions and across society |  | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

| **National Example** | **What happened?** | **What type/s or racism? Why?** |
| --- | --- | --- |
| [**Media**](https://docs.google.com/document/d/1u9Gxb_jVqUwgeKGMqwf2r9_JE-xQO2nTTJgG3E3Oz8E/edit) |  |  |
| [**Police Brutality**](https://docs.google.com/document/d/1vde-oYw_xYLJ-aCSswel9BqMHJBPCcd2Qk51jiz8meM/edit#heading=h.84a0n7vp8w27) |  |  |
| [**Hate Crimes**](https://docs.google.com/document/d/1p2xIZsF83GTYt9ZaQ-jQdGuWdSWsv-Uj7itr2YqAQ9M/edit#) |  |  |
| [**Bank**](https://docs.google.com/document/d/1uWDpdGl1ftc4wiGlHiJDqk_d1SA-wn7uPMF8e1jHdNU/edit#heading=h.6cz25xgjcc4z) |  |  |

**Part 4: Coding Layers of Music Using Variables and Functions:**

**Directions:** After [exploring sounds in the EarSketch](https://earsketch.gatech.edu/earsketch2/#?curriculum=9-0-0&language=python) sound library, watch [this video](https://www.youtube.com/watch?v=jXI7rQeT2j0&feature=youtu.be) and take notes to add the following key learnings to your toolbox. Your teacher will go over any additional/missing terms after.

| ***Make Beats.*** | | **Term:** | **Definition/picture** | | --- | --- | |  | A part of a song that is recorded separately as a musical clip and added to a piece of music. In a DAW, tracks are arranged in rows and labeled with numbers. | |
| --- | --- | --- | --- | --- | --- |
| ***Learn Code.*** | | **Term:** | **Definition** | | --- | --- | |  | A unit of storage that creates a space in the computer’s memory to store data.   | #SOUND BANK VARIABLES- This is where I will keep my variable 'nicknames' for my sound clips  drum =ENTREP\_BEAT\_DRUMBEAT  vox1=ENTREP\_VOX\_PHARRELL\_BLKMAN  perc1=ENTREP\_PERC\_BONGO | | --- | | |  | a piece of code that you can easily call over and over again. | |  | The function that adds audio clips to a track and uses four arguments/parameters - (sound clip, track, starting measure, ending measure).   * **fileName:** The sound clip that is placed in the DAW. * **trackNumber:** The track on which music is placed. * **startLocation:** The measure at which the sound clip will start. * **endLocation:** The measure at which the sound clip will end. (this number must be greater than the start location) | |

**Directions:** Code Your Intro! Follow instructions below to insert five audio clips or tracks into your “Your Voice is Power” Script

| 1. Search for sounds, by artist, genre and instrument. You can search for Hip-Hop sounds or remix other genres to create a hip-hop song. |  |
| --- | --- |
| 2. Use the green play button next to the name of the sound clip to listen to it and decide if you want to add it to your script. |  |
| 3. Paste the sound into your #SoundBank and assign a variable. |  |
| 4. Click on the line in your in “Your Voice is Power” script below the title #Intro |  |
| 5. Enter your fitMedia function - fitMedia() |  |
| 6. Define the fitMedia() function by inserting your sound clip(drums), track (1), starting measure (1), and ending measure (5). Check to make sure you have commas between your arguments and have closed your parentheses. Then, click run and play. |  |
| 7. Repeat these steps until you have five tracks (or five audio clips) added. Run and play your code. How do your layers sound?  \*\* Remember each audio clip needs to be on a different track. You can have each audio clip start on measure 1 and end on measure 5. |  |

*Want to learn more about the recording artists in the EarSketch : Click on their links to learn more about their history and musical style:* [*Pharrell,*](https://en.wikipedia.org/wiki/Pharrell_Williams)[*Ciara,*](https://en.wikipedia.org/wiki/Ciara)[*Common*](https://en.wikipedia.org/wiki/Common_(rapper))*,* [*Richard Devine*](https://en.wikipedia.org/wiki/Richard_Devine) *and* [*Young Guru*](https://en.wikipedia.org/wiki/Young_Guru) *.*

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| Module 3: Set Your Own Tempo |
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**Part 1: Warm Up - Decode Pharrell’s Message**

**Directions:** [Listen to the Chorus](https://drive.google.com/file/d/1qK7tgp8ZURWQbFU0e7HNVgntxhnvVxtf/view?usp=sharing), and answer the questions to the right. Your teacher will play the music for the class to help you better analyze. After you are done, [watch Dr. Wilson’s analysis**.**](https://www.youtube.com/watch?v=1I5pzfcEcFQ&feature=youtu.be)

Credit: Dr. Joycelyn Wilson, Georgia Tech, [HipHop2020.org](http://hiphop2020.org)

| Chorus:  You need let go (Let go)  If you want to fly, take the leap  You gotta risk it all (Risk it all)  Or they'll be lots of things you'll never see  Remember black is space  And it's the color of your face  There will be no sunny days  If Black went away | Listening Analysis Questions |
| --- | --- |
| **Listen with music and lyrics:**   1. What principles of OUTKAST Imagination framework do you hear in the chorus of the song? 2. How does the song make you feel? What is the [mood](https://missalike.weebly.com/uploads/4/8/9/9/4899792/2521904_orig.png) of the song? What sounds give it that mood? 3. How does the verse reflect the impact of Hip-Hop? |
|

**Part 2: Explore Entrepreneurship**

**Directions:**

1. Watch [this video](https://www.youtube.com/watch?v=94X6rapN7os&feature=youtu.be) about Beatrice Dixon who was featured in the Entrepreneur video. Answer the questions below.
2. Then, select one of the entrepreneur profiles in the list below. Read and learn all about this amazing entrepreneur! Answer the questions about them and be prepared to share with your class.

| **Featured Entrepreneurs:** | **Discussion Questions:** |
| --- | --- |
| [**Beatrice Dixon**](https://www.youtube.com/watch?v=94X6rapN7os&feature=youtu.be) | 1. Why is Beatrice considered an “entrepreneur”? 2. What are the mindset(s) and belief(s) that Beatrice has? 3. If Beatrice had a theme song, what **tempo** music would you give her? Fast/Slow? Why? |
| Group 1:[Paris McKenzie](https://docs.google.com/document/d/1AerP06-CpfTc2wAYohWd6ZV_8ux5e3fhEmLJAGCGPfQ/edit?usp=sharing)  Group 2: [Lual Mayen](https://docs.google.com/document/d/1puMDk1UpM4dgQ5LORF3eT5cXaaNdVAFJO4JFc028CHU/edit?usp=sharing)  Group 3:[Jessica Sanchez](https://docs.google.com/document/d/1KcFG1UPk6xwH7nbSYo0c5w8gNbMdSDAR9t7RTvTcinc/edit?usp=sharing)  Group 4: [Timothy Armoo](https://docs.google.com/document/d/1XMNUkT9JxXXpM7DYOj4A5L_F599OZbeHX1l9p0LgKtk/edit?usp=sharing)  Group 5:[Morgan DeBaun](https://docs.google.com/document/d/16i_UiBaDmDxLc-z8mE9RYzQy6QDCU1x2bMF-KD9RzK0/edit?usp=sharing)  Group 6:[Tamra Means](https://docs.google.com/document/d/1XLnau2j8aHUGjJsYFMbLUDdWSrJberplGCslGmzplD4/edit?usp=sharing)  Group 7:[Dinasty Brown](https://docs.google.com/document/d/11e0ir1AoCoB1cVRqUEmBKEsqC3GH7pNt_o0jWvyrVSs/edit?usp=sharing)  Group 8: [Kathryn Finney](https://docs.google.com/document/d/1WCMIy4rwkPHRtOavWwpweGBCASlx7qLe5HuP71YsIyc/edit)  Group 9: [Ashifi Gogo](https://docs.google.com/document/d/1x0Dwq7ovzIWNosgu4J-cGkh_-4OaA9M-MvgKFhphiyU/edit?usp=sharing)  Group 10: [Archel Bernard](https://docs.google.com/document/d/191IdjrE_86rvk9VpPJyn-wPA6q7FoP-9sG7biHBCMdI/edit?usp=sharing) | I selected \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.   1. Why is the person you learned about considered an “entrepreneur”? 2. What mindset(s) and belief(s) do you think or believe they have? 3. What’s most interesting to you about their journey as an entrepreneur? 4. If your entrepreneur had a theme song, what **tempo** music would you give them? Fast/Slow? Why? |

**Part 3: Build Your Toolkit**

**Directions:** Watch [this video](https://www.youtube.com/watch?v=f9aHwLqoKL0&feature=youtu.be), and take notes to add the following key learnings to your toolbox. Your teacher will go over any additional/missing terms after.

| ***Make Beats.*** | | **Term:** | **Definition/picture** | | --- | --- | |  | the speed of a given piece of music (or the number of beats per minute). Determines the mood/feel of a song.   | Hip Hop: 85-95 bpmPop: 118 bpmTechno: 120-125 bpmElectro: 128 bpm | House: 115-130 bpmDubstep and Trap: 140 bpmDrum & Bass: 160 - 180 bpm | | --- | --- | | |  | basic unit of musical time. It’s the steady pulse of a song that you might nod your head to. | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Learn Code.*** | | **Term:** | **Definition** | | --- | --- | | **setTempo ()** | A function in EarSketch that tells the computer the number of beats per minute. Every EarSketch script opens with a baseline tempo of 120 beats per minute—a fast walk or marching speed. | |
| ***Make Beats.*** | | **Term:** | **Definition/picture** | | --- | --- | |  | a musical term for length in time. | |

**Part 4: Build a 16-Measure Song with Staggered Sounds**

**Directions:** Follow the directions below to edit your existing tracks, and add new tracks to build a 16-measure song.

| By the end of today, your code must:   * Have a **#SOUNDBANK** section that assigns variables to your favorite songs. * Sets a unique **tempo.** * Have **at least 5 tracks** that each call a sound from the #SOUNDBANK. * Last **at least 16 measures.** * **Stagger sounds** (not all start and stop at the same time). |
| --- |

**To do this:**

1. Choose 5 sounds from your #SOUNDBANK or find new clips in the sound library.
2. Insert each sound into your code using the **fitMedia()** function. Remember if you use new sound clips, assign them a variable or “nickname”.
3. Adjust the starting and ending measures to stagger the songs. Below is a recommend staggering to try out as a base if you would like:
   1. Track 1: Start at 1, end at 5.
   2. Track 2: Start at 3, end at 7.
   3. Track 3: Start at 5, end at 9.
   4. Track 4: Start at 8, end at 14.
   5. Track 5: Start at 8, end 16.
4. Click run, and play to listen to your code. **You now have a 30 second song!**
5. Done early? Add more tracks and sounds to your code! See if you can do up to 10 tracks!

You can use the code below to practice.

| #INTRO fitMedia(drum, 1, 1, 5) fitMedia(bass1,2, 1, 5) fitMedia(cymbal,3,1,5) fitMedia(clave,4,1,5) fitMedia(harp,5, 1,5) fitMedia() fitMedia() fitMedia() |
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| Module 4: Song Structure - Every Part/Person Has a Purpose |
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**Part 1: Warm Up - Decode Pharrell’s Message**

**Directions:** [Listen to verse 2 (part 1)](https://drive.google.com/file/d/1BpHvDEv1NpdZzeeuq7qnierSzYvqnhdh/view?usp=sharing), and answer the auestions 1-4 that follow. Then, watch [Dr. Wilson’s analysis.](https://www.youtube.com/watch?v=bHsgixdTyYs&feature=youtu.be)

Credit: Dr. Joycelyn Wilson, Georgia Tech, [HipHop2020.org](http://hiphop2020.org)

|  | 1. Does this symbolize a **barrier (hurt)** or **builder (help)** for **Black Entrepreneurship?** |
| --- | --- |
|  |  |
|  |
|  |
|  |
| 1. What principles from the **OUTKAST Imagination Rubric** do you see in this verse? 2. What **message** is Pharrell sending in this verse? Why would he put this at the end of the song? How does this reflect Pharrell’s goal in elevating people through music? | |

**Part 2: Build Your Toolkit**

**Directions:** Follow along with your teacher to add the following key learnings to your toolbox.

| ***Promote Equity.*** | | **Term:** | **Definition/picture** | | --- | --- | |  | A person who recognizes their privilege based on race, class, gender, etc. and is committed to work in unity with oppressed groups in the fight for social justice. | |  | A person who uses their voice and power to promote specific political and/or social changes in policies and practices. | |
| --- | --- | --- | --- | --- | --- | --- | --- |

**Part 3: Explore Allyship or Activism - Every Person Plays a Part**

**Directions:** Select one of the profiles in the list below. Read and learn all about this amazing advocate! Answer the questions about them and be prepared to share with your class.

| **Featured Advocates:** | **Discussion Questions:** |
| --- | --- |
| Group 1: [Nunnally Twins](https://docs.google.com/document/d/1cpD9-CA-etKBCuIEyGNUqH8EjEzAtlVFSUE0U-Z6J8k/edit#heading=h.iixncaq45uor)  Group 2:  [Kezia Williams](https://docs.google.com/document/d/1Qmeh0VFBu6ONGr3U3ASgxmux9Vyb51N9dY-7f9o2-ow/edit?usp=sharing)  Group 3:[Diana Jue/ Jackie Stenson](https://docs.google.com/document/d/1Gv8W4Vt69MNVP7TxRPqu9T-Ro44FMaBcSIWw1KMWAjQ/edit?usp=sharing)  Group 4: [Matt Wisdom](https://docs.google.com/document/d/1abRmeBlwZdNYsdZyV5orPHFiPreoPsquI7eTrEJ9mDI/edit?usp=sharing)  Group 5:[Lisa Skeete Tatum](https://docs.google.com/document/d/14f8m64DyON8jsCb8rW0bhAD_KhtDKzeTq006lZJwyl0/edit?usp=sharing)  Group 6: [Libby Fischer](https://docs.google.com/document/d/1FjYF58CeY-4r_YV0NsIsbdd0Vfnwo-XuN6u5Moxv1KY/edit?usp=sharing)  Group 7:[Everette Taylor](https://docs.google.com/document/d/1U_Uwp_ieDyzkOPED0O6rCKyOwRnJ2Why4EjXcvzFn50/edit?usp=sharing)  Group 8: [Ben Ishfin & Leah Lykins](https://docs.google.com/document/d/1unbFBWX0Fhdpxz4zHHIH84IA8OUTvsDKeg_Z15eD6qo/edit?usp=sharing)  Group 9: [Jonathan Chin](https://docs.google.com/document/d/1KrzYH9jfTmJY_Xdpiamqe49vuz3lrJJl2eO_53hKmE8/edit?usp=sharing)  Group 10: [Jake Porway](https://docs.google.com/document/d/1vDcbigsHjSiWLrAxaBu6HCk63koz3OcrvKCEjOG0gyI/edit?usp=sharing) | Why is your selected person(s) considered an “entrepreneur?”  How do they fight for social justice?  How do they use computer science to make a positive social impact?  What may motivate him/her/them to do so based on what you’ve read/listened to? |

**Part 4: Build Your Toolkit**

**Directions:** Your teacher will present on song structure. Take notes to add the following key learnings to your toolbox.

| ***Make Beats.*** | | **Term:** | **Definition/picture** | | --- | --- | |  | The section of a song with lyrics and melody repeated throughout the song in between the verses. This is your “earworm” — the most memorable part of your song. | |  | The “storytelling” parts of the song. It completes the body of the song and provides variety between repeated choruses. There are usually multiple verses in a song that support the main message of the chorus. | |  | This generally short section of the song has a different melody and lyric from any other section. It often is used toward the middle or end of the song to build up to the chorus. | |  | Short passages of music that combine musical sections. The goal of the transition is to grab the listener’s attention and let them know a change is about to occur. | |  | Song sections that often contain only music and no words, that contain the feeling of the song. These are used to open or close the song. Both intros and outros may use tempo and volume as methods to both build and fade mood in the song. |   **Example Song Structures:**   | **VERSE** | **CHORUS** | **VERSE** | **CHORUS** | **BRIDGE** | **CHORUS** | | --- | --- | --- | --- | --- | --- | | A | B | A | B | C | B | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |

**Directions:**  Using the labels: **Intro, Verse, Chorus, Bridge, Outro,**, listen to [Entrepreneur](https://www.youtube.com/watch?v=bTOoY5MIkvM) and label the different sections to better understand the full song structure.

| **Section** | **Lyrics** | **Section** | **Lyrics** |
| --- | --- | --- | --- |
|  | Instrumental |  | Uh, lies told to you  Through YouTubes and Hulus  Shows with no hues that look like you do  Black Twitter, what's that?  When Jack gets paid, do you?  For every one Gucci, support two FUBU's  Sippin' Crip-a-Cola  Consumer and a owner  'Til we all vertically integrated from the floor up  D'Ussé pour up  Sip Ace 'til I throw up  Like gang signs, 'cept I bang mines for both ya  Serial entrepreneur, we on our own  Stop sittin' around waitin' for folks to throw you a bone  If you can't buy the building, at least stock the shelf (word)  Then keep on stacking 'til you stocking for yourself, uh  See everything you place after black  Is too small a term to completely describe the act  Black nation, Black builder, Black entrepreneur  You in the presence of Black excellence and I'm on the board, Lord |
|  | I am black ambition  I am always whisperin'  They keep tellin' me I will not  But my will won't listen  Gravity on a black man  With everything on his back and  His family and passion  If the doors ain't crackin' |
|  | You gotta let go (let go)  If you wanna fly, take the leap  You gotta risk it all (risk it all)  Or there'll be lots of things you'll never see  You gotta let, let go  'Cause you never know  What's in store  Mr. Entrepreneur |
|  | In this position with no choice  A system imprison young black boys  Distract with white noise  The brainwashed become hype boys  Third eye dilate  You ain't supposed to make it off Section 8  Robbin' Peter just to pay Paul  Prepare to risk everything |  | Black man, Black man, Black man (ayy, Lord, Lord, Lord, Lord, Lord)  Black man, Black man, Black man  Black man, Black man, Black man  Black man, Black man, Black man (God, God, God, ayy, God, ayy, God)  Black man, Black man, Black man  Black man, Black man, Black man  Black man, Black man, Black man  Black man, Black man, Black man  Black man, Black man, Black man (Lord, yuh, God)  Black man, Black man, Black man  Black man, Black man, Black man  Black man, Black man, Black man  Black man, Black man, Black man  Black man, Black man |
|  | You need to let go (let go)  If you wanna fly, take the leap  You gotta risk it all (risk it all)  Or there'll be lots of things you'll never see  Remember, black is space  And it's the color of your face  There will be no sunny days  If Black went away |
|  | Black man, Black man, Black man  Black man, Black man, Black man  Black man, Black man, Black man  Black man, Black man, Black man  Black man, Black man, Black man  Black man, Black man, Black man  Black man, Black man, Black man  Black man, Black man, Black man  Don't go chasin' waterfalls  Please stick to the drip that you're used to  They don't make 'em like they used to |  | Black man, Black man, Black man  Black man, Black man, Black man  Black man, Black man, Black man  Black man, Black man, Black man  Black man, Black man, Black man  Black man, Black man, Black man  Black man, Black man, Black man  Black man, Black man, Black man  Instrumental |

**Part 5: Code your Song Structure (OPTIONAL: This is not required for 2024 competition)**

**Directions:** Watch [this video](https://www.youtube.com/watch?v=3cnVDbO63sA&feature=youtu.be), and take notes to add the following key learnings to your toolbox. Your teacher will go over any additional/missing terms after.

| ***Learn Code.*** | | **Term:** | **Definition** | | --- | --- | |  | Written by the programmer to accomplish a specific task, often a task that must be done more than once. | |
| --- | --- | --- | --- | --- | --- |

For the song competition, songs must **have two custom functions and list their calls**. Follow the instructions below to code two custom functions in EarSketch- Verse and Chorus:

| **Instructions** | **Example EarSketch Code** |
| --- | --- |
| 1. Find the label **#verse** in your script | #verse def verse |
| 1. Define the function verse - write **def verse** |
| 1. Add your arguments. The arguments for this function will be the “start” measure and “end” measure. We will name these arguments “start” and “end” in this function, separating them with a comma. Add your colon, and press enter to go to the next line. | #verse  def verse (start,end): |
| 1. Look at your track’s **fitMedia()** functions that you have already coded. Think about which tracks you would like in your verse section. Move them under the **def verse(start, end):**. Remember to indent each **fitMedia()** action under your custom function so they are “inside” the function. | def verse (start,end):  fitMedia(drums,1,1,5)  fitMedia(bass,2,1,5)  fitMedia(vox,3,1,5)  fitMedia(vox1,4,1,5) |
| 1. Change your **fitMedia()** measure parameters by replacing the start and ending measures with **start** and **end.** For example, **fitMedia(drum, 1, start,end)**. | def verse (start,end):  fitMedia(drums,1,start,end)  fitMedia(bass,2,start,end)  fitMedia(vox,3,start,end)  fitMedia(vox1,4,start,end)  verse(1,5)  verse(6,10) |
| 1. After you have moved all of your **fitMedia()** commands to your custom function and changed their start and end times, hit the return key twice. Your code should no longer be indented. To call your custom function, type **verse(1,5**) to have your verse play between measure **1** and measure **5**. Add **verse(6,10)** to place the verse again between measure **6** and measure **10.** These sections are 4 measures long. (5 - 1 = 4, 10 - 6 = 4) We recommend song sections that have measure lengths as multiples of 4. |
| 1. Run your script. Do you have two verses? |  |
| 1. Find the label **#verse** in your script | #chorus  def chorus (start,end): |

| Module 5: Call to Action |
| --- |

# 

**Part 1: Warm Up - Decode Pharrell’s Message**

**Directions:** [Analyze verse 2 (part 2)](https://drive.google.com/file/d/1BpHvDEv1NpdZzeeuq7qnierSzYvqnhdh/view?usp=sharing) according to the questions below. Then, watch [Dr. Wilson’s analysis.](https://www.youtube.com/watch?v=cKaa6MQ7hvk&feature=youtu.be)

Credit: Dr. Joycelyn Wilson, Georgia Tech, [HipHop2020.org](http://hiphop2020.org)

| | Serial entrepreneur, we on our own  Stop sittin' around waitin' for folks to throw you a bone | | --- | | If you can't buy the building at least stock the shelf (Word)  Then keep on stackin' 'til you stockin' for yourself, uh | | See, everything you place after black  Is too small a term to completely describe the act | | Black nation, black builder, black entrepreneur  You in the presence of Black Excellence, and I'm on the, I'm on the board, Lord | |
| --- | --- | --- | --- | --- |
| 1. What is Pharrell’s final message of the song? How did he accomplish this message? 2. How does this song inspire you to take action? How does the genre of Hip-Hop also inspire action? |

**Part 2: Craft Your Meaning**

**Directions:** Watch your final [Call to Action Video](https://www.youtube.com/watch?v=r1TE0phH_oA&feature=youtu.be). Then, reflect on the questions below. You can jot down your own answers in the space below or share your thoughts online in a collaborative space (with a partner or small group). Spend at least 3 minutes for each section to brainstorm words and statements to respond to the guiding questions.

| **Awareness** | **Analysis** | **Action** |
| --- | --- | --- |
| What new or evolved understanding(s) of injustice have you gained during this experience? What were you not aware of before this experience? What evidence of the existence of inequities in marginalized communities most compels you to want to promote equity? How has Hip-Hop played a role in advancing equity? | To what extent do you feel that you work to promote equity? Are there positive things you do already to advance justice? If so, what are they, and what are new or different things you can do moving forward to further promote equity? Were you aware that Hip-Hop was more than a genre of music? How can Hip-Hip music inspire you to do more in your community? | How can you address inequity in your community? Who did you learn about this week that inspired you to take action and why? What is your voice in this fight as a member of a marginalized population or as an ally? How can you encourage others to promote equity? |
| *Add your reflection here or in a collaborative online space* |  |  |

**Part 3: Add Voice to Your Code**

**Directions:** Open the “Your Voice is Power” script you have been working on. Look at your code, and listen to your music. Start commenting in your song.

| * Comment out different sections of your song that reveal awareness, analysis, or action. | #Awareness - Example Institutional Racism #Prison Pipeline  fitmedia(ENTREP\_VOX\_BK\_LETOUT,18,6,14) |
| --- | --- |
| * Comment out sections that you may want to include your voice (through words/lyrics) or the voice of your community | #Need to add Lyrics about STEM Power #Upload Community Voices - Track 14 |
| * Comment on your targeted audience and what awareness they need to understand your song. Students can also include the **print** function to print the purpose of their song in the console. | #author: Student Name  #Audience: Family and Friends -  print("My song is to explain that there is ongoing racial inequity in our community") |
| * Comment your role (ally, activists, self). | #author: Student Name writing as an ally |
| * Comment your attributions. Make sure you give credit to the artists of the sound clips used in your song. | #audio clips used for remix from Pharrell’s song “Entrepreneur” |

**Part 4: Completing Your Code**

**Directions:**  Finish coding your song. EarSketch has some additional features that were not taught during this five-module experience. We listed a few below that might help boost your remix. Click on the links provided to learn more.

| **Bonus Skill** | **What You Will Learn** | **Link for Curriculum Resources** |
| --- | --- | --- |
| *Uploading sounds (adding lyrics, community sounds)* | For students who want to add their actual voice to the song by singing or rapping. You may want to add some community sounds or other sounds that are not in the EarSketch library. Your students will have the option of *uploading a new sound*, *doing a quick record,* and *finding a clip on Freesound.* | [*Uploading Sounds*](https://earsketch.gatech.edu/earsketch2#?curriculum=2-2-0&language=python)  [*Quick Tutorial*](https://docs.google.com/document/d/1Kge-N4a5bh0v1iqkL-NrQX9hN53WbQMVpj36esWb-mo/edit)  [*Uploading Sounds Video*](https://drive.google.com/file/d/1Ac3zUKewHPZcC_JELDRmkU5IaGXiMWE_/view?usp=sharing) |
| *setEffect()* | Students will learn how to adjust track volume, code for fades, create echos, distort their sounds, change the pitch, and create a reverb in their sounds. | [*Effects in EarSketch*](https://earsketch.gatech.edu/earsketch2#?curriculum=1-4-0&language=python)  [*Effects and Envelopes*](https://earsketch.gatech.edu/earsketch2#?curriculum=1-4-0&language=pytho)  [*Every Effect Explained in detail*](https://earsketch.gatech.edu/earsketch2#?curriculum=5-1-0&language=python)  [*setEffect() Video*](https://drive.google.com/file/d/1REcVkE0ZMFhBHqI34NribREL3RTvqFuM/view?usp=sharing) |
| makeBeat() | You will learn how to compose music note by note instead of at the measure level. This is great for drum beats. This approach is often called **step sequencing** in music production. | [Making Custom Beats: makeBeat](https://earsketch.gatech.edu/earsketch2#?curriculum=2-3-0&language=python) |
| Loops | You will learn how to code more efficiently and add repetition to your music. You should use this to code your breakbeat | [Looping](https://earsketch.gatech.edu/earsketch2#?curriculum=2-4-0&language=python)  [Musical Repetition](https://earsketch.gatech.edu/earsketch2#?curriculum=2-6-0&language=python) |

**Part 5: Debug Your Code:**

**Directions:** Debug your code and song before submitting using the directions below.

| ***Learn Code.*** | | **Term:** | **Definition** | | --- | --- | |  | the process of finding and fixing bugs (errors made by the programmer). | |
| --- | --- | --- | --- | --- | --- |

1. **Run your code.**
2. **Check the console - are there any errors?**
   1. If there are no errors, move on to **Part 2** in the song submission process.
   2. If you have an error in your code, continue to step 3 in the debugging process.
3. **Read the console for clues (such as line number or type of error).**
4. **Locate the error in your code:** If the console provided a line number, take a look at that line and the previous line in your code. Check any arguments carefully. *You can also comment out the lines of code one at a time to identify where a possible error could be.*
5. **Print debugging** can also be used to locate an error. Insert **print** statements throughout your code to obtain the value of variables and check your logic.
6. **Squash the bug:** Check for syntax errors, like unclosed parentheses, quotations, or brackets. Edit the code, and run it to verify its correctness.
7. **Ask for help**: If you find you have spent too much time on a bug, then ask someone for help! A fresh pair of eyes can do wonders for spotting mistakes.

**Part 6: Check Your Song & Submit:**

**Directions:** Check to make sure that your song meets all competition criteria before submitting.

| ***Make Beats.*** | * Song is a minimum of 30 seconds and a maximum of 2 minutes * The song should have at least 5 unique music tracks – one track which is a looped drum beat. * The song needs to be a remix - and include music from more than one artist   **Recommended**   * Song include lyrics, voiceover, beatboxing * Includes a Breakbeat * Includes any of following elements*: Drum Machine, Synthesizer, Jazz or Afro-Caribbean beats, sampling, chants.\** * Stems can be from any genre and song does not need to be in the hip-hop genre– but should contain one or more musical elements from hip-hop |
| --- | --- |
| ***Learn Code.*** | * The final code will need to run without any errors and play in the digital audio workstation. * Include the EarSketch API function fitMedia to insert sound clips * Use comments to describe code and document the message in the song * Use a for-loop for your break-beat   **Recommended**   * Use of variables to write more efficient code * Include Custom/User-defined functions to structure the song |
| ***Promote Equity.*** | * The song should reflect student voice * Includes a call to action or purpose * Includes written reflection   **Recommended**   * Connects to the impact of Hip-Hop * Reflection includes additional submission (art, dance video), lyrics (even if not recorded) |

| [**Submit Your Song**](https://www.rocketjudge.com/register/Ofc4VNzI)  **Deadline: June 21st, 2024** | ***YOUR VOICE IS POWER.*** |
| --- | --- |