

# Lesson 5.02: EarSketch Music ## Learning Objectives Students will be able to... \* Define and identify: **rhythm**, **beat**, **tempo**, **measures**, `setEffect()`, `makeBeat()` \* Demonstrate beats using the functions \* Demonstrate a loop through items in a list ## Materials/Preparation \* [Do Now] \* [Lab - EarSketch Music] ([printable lab document]) ([editable lab document]) \* [EarSketch Editor] \* Associated Reading in EarSketch \* Read through the do now, lesson, and lab so that you are familiar with the requirements and can assist students ## Pacing Guide | **Duration** | **Description** | | ----- | ----- | | 5 Minutes | Do Now | | 10 Minutes | Lesson | | 35 Minutes | Lab | | 5 Minutes | Debrief | ## Instructor's Notes ### 1. Do Now \* Students should be given time to read unit 2 of the EarSketch documentation. \* Students should answer the questions included in the do now and be prepared to discuss them as a class. ### 2. Lesson \* Call on students to discuss the answers to the questions from the Do Now. ##### Recap tthe following key concepts from the reading \* **Rhythm**: describing how the music moves through time. \* **beat** is the basic unit of time in music. \* clapped along to a song, you are clapping on each beat. \* The length of a beat depends on the overall speed of the song, called the **tempo**. \* Beats are grouped into **measures**. In EarSketch, measures always have four beats. \* `makeBeat()`: instead of composing at the measure-level, we can work at the note-level. \* **parameters**: clip name, track number, measure number, beat string \* **Tempo** is measured in beats per minute (bpm). \* Clapping at 60 bpm, each beat lasts one second. \* At 120 bpm, each beat takes half a second. \* The higher the bpm, the faster the song and the shorter the duration of each beat. \* `setEffect()`: add an effect to a track. \* **Takes parameters**: track number, effect name, effect parameter, effect value ### 3. Lab \* Follow the EarSketch instructions in the lab to use the `makeBeat()` function \* Create a simple song with 2 uses of `fitMedia()`, 2 uses of `makeBeat()` and 1 use of an effect. ### 4. Debrief \* Talk about the new functions learned today, and go over any questions about data types and using strings. \* Have students write down two things they have learned so far in EarSketch. ## Accommodation/Differentiation Students can use looping and if statements to their song as an extension activity to make their songs more complex. Students will likely bring a wide range of background knowledge around music and the related terminology. Offer additional support to those students that are less familiar with the terms being introduced in this lesson. ## Forum discussion [Lesson 5.02: EarSketch Music (TEALS Discourse Account Required)](<https://forums.tealsk12.org/c/2nd-semester-unit-5-earsketch/lesson-5-02-earsketch-music>) [Do Now]: [do\\_now.md.html](https://forums.tealsk12.org/c/2nd-semester-unit-5-earsketch/lesson-5-02-earsketch-music) [Lab - EarSketch Music]: [lab.md.html](https://forums.tealsk12.org/c/2nd-semester-unit-5-earsketch/lesson-5-02-earsketch-music) [EarSketch Editor]: <http://earsketch.gatech.edu/earsketch2/> [printable lab document]: [https://github.com/TEALSK12/2nd-semester-introduction-to-computer-science/raw/master/units/5\\_unit/02\\_lesson/lab.pdf](https://github.com/TEALSK12/2nd-semester-introduction-to-computer-science/raw/master/units/5_unit/02_lesson/lab.pdf) [editable lab document]: [https://github.com/TEALSK12/2nd-semester-introduction-to-computer-science/raw/master/units/5\\_unit/02\\_lesson/lab.docx](https://github.com/TEALSK12/2nd-semester-introduction-to-computer-science/raw/master/units/5_unit/02_lesson/lab.docx)