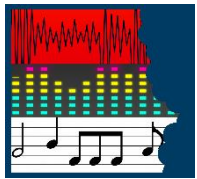




Teacher Pack



Collection: Sound Bites
Course: Beatmaking with Mo
Year Level: 7-10
Lessons: 4 x 60 Minutes



Overview

The Sound Bites Collection introduces students to specific activities that professional Australian musicians use to spark their creative process.

The Beatmaking with Mo course introduces students to Mo Komba, a singer, songwriter and music producer who shares some of the approaches he uses to generate electronic music. Through the lesson series, students are introduced to advanced music production techniques that enable students to develop textured and interesting pieces of music. This course requires students to have access to, and basic confidence using a Digital Audio Workstation (DAW).

ARTS:LIVE courses are supported by engaging videos, audio files, student activity sheets and home learning activities. Further information related to this course, including teaching tips, pedagogical approaches, glossary terms and more, can be accessed through the Beatmaking with Mo Overview webpage.

Course: Beatmaking with Mo

Lesson One: Create a Beat

Learning Area: The Arts **Strands:** Music

Time: 60 Minutes

Year Level: 7-10

Content Descriptors 7-8:

- Experiment with texture and timbre in sound sources using aural skills (ACAMUM092).
- Develop musical ideas, such as mood, by improvising, combining and manipulating the elements of music (ACAMUM093).
- Structure compositions by combining and manipulating the elements of music using notation (ACAMUM095).

Content Descriptors 9-10:

- Improvise and arrange music, using aural recognition of texture, dynamics and expression to manipulate the elements of music to explore personal style in composition and performance (ACAMUM099).
- Manipulate combinations of the elements of music in a range of styles, using technology and notation (ACAMUM100).

Learning Focus:

- Students learn about music producer Mo Komba and his process to create electronic music.
- Students use a Digital Audio Workstation to experiment with using drum loops.

Time	Teaching and Learning Strategies	Preparation and Resources:
10 minutes	Prior skills and knowledge Before beginning these lessons with your students, pick a Digital Audio Workstation (DAW) that your students will work with. Both Mac and PC have free and low cost options available, such as Garageband, Audacity, Reaper and Mixcraft. Soundtrap is a free online program. Become familiar with your DAW of choice. There are many free online tutorials available to help you. This resource is most suited for teachers with a background in using a DAW. Intermediate experience in making electronic music is also preferable. Please contact The Channel at Arts Centre Melbourne if you wish to enquire about professional learning in this area. It's ideal if you and your students know how to do the following processes on a DAW before you begin this course: • Zooming in and out • Accessing the loop and sample library • Moving around the workspace • Creating a software instrument track (for MIDI) • Creating an audio track (for audio)	Relevant online resources • Beatmaking with Mo Komba video • Choose a Drum Loop activity sheet • Download the drum loops and samples to provide to students • Soundcloud link to IAMMXO • Hip Hop Beat audio track • Hip Hop Beat with bars two and four audio track • Hip Hop Beat with EQ audio track

5 minutes

- Dragging loops and samples into the timeline
- Cutting and pasting audio and MIDI regions
- Recording audio and MIDI
- Using simple plugins – for example: EQ, Filter, Reverb and Delay

Introduction

Introduce students to Mo Komba using the information below and the Beatmaking with Mo Komba video. Consider sharing some of his music with students.

Mo Komba is the stage name of Australian musician Mohamed Komba (also known as IAMMXO). Mo Komba is a singer, songwriter and music producer. He also runs a record label called *Alt. Music Group*. Mo Komba used the stage name Momo when he was in the Australian hip hop duo Diafrix. Diafrix formed in Footscray in 2001 when Mo Komba met Azmarino (Khaled Abdulwahab) at a hip hop clinic. Listen to some tracks produced by Mo Komba as IAMMXO.

15 minutes

Beatmaking

Discuss the Beatmaking with Mo Komba video. What did the students notice about Mo Komba's creative process? Mo moves quite fast when he is editing and manipulating the sounds. Encourage the students to take it slowly and understand that he has been using this equipment for many years. Use these questions to prompt discussion:

- What does it mean to be an electronic music producer? Electronic music producers need to get to know how to use a DAW (Digital Audio Workstation) to create music via the computer. They might also play an instrument or work with other instrumentalists and singers. It is still useful to know about music theory as an electronic music producer and to know about rhythm, melody and harmony.
- What other electronic music producers do the students know and like? Listen to some of the producers that the students suggest and ask them to articulate what they like about the music. This discussion doesn't necessarily need to be in technical or musical terms. It is important to encourage students to have the confidence to vocalise their opinions when it comes to music production and song writing.
- What are the building blocks of a piece of electronic music? What are the similarities and differences between electronic music production and more traditional pop or rock song composition? Generally they can both be built up with a rhythm part (drums), a bassline, a melody and chords. They might also use the same song structures verse, chorus, bridge etc.
- Discuss copyright and the importance of knowing about it when using samples in music. What does Royalty Free mean?

Additional resources required

- DAW (Digital Audio Workstation)
- Audio interface – to record any live vocals or instruments
- Royalty Free Drum Loops
- MIDI controller
- Electronic music examples

30 minutes

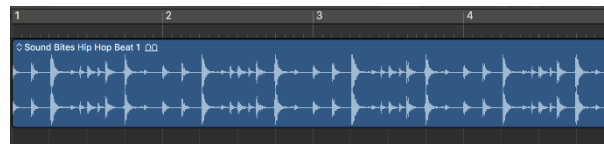
Choose a drum loop

Rhythm is the foundation of a song, it often creates the mood or genre of the song. Choosing a drum loop can set the mood on the song. Hand out the Choosing a Drum Loop activity sheet and discuss the steps involved. This includes:

- choosing a tempo
- listening to a range of drum loops
- choose one and make it sync up with your workstation grid
- Mo talks about collecting drum packs. Discuss what a drum pack is and how students can build up their own collection of drum packs. A drum pack is a set of drum loops that includes the main sounds you would hear on a drum kit such as the bass drum, snare and hi-hat. Drum packs can be purchased online or downloaded free from Royalty Free websites. Many DAWs come with a collection of drum loops that you can use – you will find these in the loop and sample library.

If there is time, students can do the extension activities outlined on the Choosing a Drum Loop activity sheet. This introduces students to two techniques that they can use to alter their drum loop. Altering a drum loop makes it unique.

Firstly, this can be done by cutting and pasting parts of the drum loop. See the example below and consider sharing the Hip Hop Beat and Hip Hop Beat with bars two and four audio tracks so that students can hear the original loop and the altered version.



Hip Hop Beat



Hip Hop Beat with bars two and four have altered to include the 3rd beat pasted into the 4th beat

Secondly, the tone of drum loop can be altered using an equaliser (EQ). Consider sharing the Hip Hop Beat and Hip Hop Beat with EQ audio tracks with students and see if they can hear the difference EQ filtering can make. Mo explains that an EQ changes the volumes of different frequencies of sound. In the

Hip Hop Beat with EQ audio track, the low and high frequencies are removed, making the drum beat sound hollow. There are more specific steps for altering sound using an equaliser in the activity sheet. Encourage students to take an exploratory approach to this activity by creating and undoing changes to find out what sounds interesting. Experimentation is important at every step of electronic music production.

Course: Beatmaking with Mo

Learning Area: The Arts **Strands:** Music

Lesson Two: Create a MIDI Drum Loop

Time: 60 minutes

Year Level: 7-10

Content Descriptors 7-8:

- Experiment with texture and timbre in sound sources using aural skills (ACAMUM092).
- Develop musical ideas, such as mood, by improvising, combining and manipulating the elements of music (ACAMUM093).
- Structure compositions by combining and manipulating the elements of music using notation (ACAMUM095).

Content Descriptors 9-10:

- Improvise and arrange music, using aural recognition of texture, dynamics and expression to manipulate the elements of music to explore personal style in composition and performance (ACAMUM099).
- Manipulate combinations of the elements of music in a range of styles, using technology and notation (ACAMUM100).

Learning Focus:

- Students explore the differences between audio and MIDI.
- Students create and record a beat using a MIDI controller.

Time	Teaching and Learning Strategies	Preparation and Resources:
20 minutes	Create a MIDI drum loop Start the discussion identifying the difference between MIDI and audio. This will be an ongoing discussion during these lessons, so don't be afraid to reiterate it several times. Explain to students that every DAW comes with two types of tracks: audio and MIDI. The students used an audio track to edit and manipulate their audio drum loop. Explain that now students will use a MIDI track to create a MIDI drum beat that will compliment and add layers to their audio drum loop. Hand out the Creating a MIDI Drum loop activity sheet. Using the information below as a guide, hold a discussion with students about the differences between MIDI and audio. MIDI stands for Musical Instrument Digital Interface. It is a language that allows computers and MIDI capable instruments to communicate. In this case MIDI is used to tell the computer to play a sound when the keyboard note is pressed. Each MIDI note contains information about things such as pitch, volume, length and tempo. MIDI is a great way to be able to play a whole lot of different sounds using one MIDI keyboard.	Relevant online resources • Create a MIDI Drum loop activity sheet • Rock bass drum audio track • Rock bass drum and snare audio track • Rock bass drum, snare, hi-hat audio track • Mo Komba's Beat audio track • MIDI Drum Map image Additional resources required • DAW (Digital Audio Workstation)

10 minutes

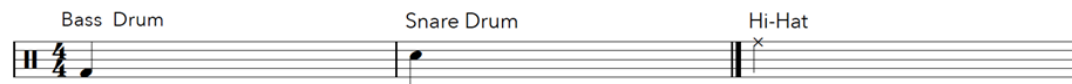
So what is the difference between MIDI and audio?

In an audio recording all of the information about pitch, volume, velocity, note length and tempo are mixed in together. These can still be manipulated using various plug-ins in your DAW but they will still remain all mixed in together. Whereas all of that information along with the sound used can be changed in MIDI.

Because MIDI is a standardised language most computers and MIDI keyboard controllers use a General MIDI map for each instrument. Show the MIDI Drum Map image for drum kit and percussion sounds.

Play

A good starting point is to teach your students how to play a very simple rock beat on the MIDI keyboard. Then have them try out a version of the drum beat that Mo Komba recorded. From there the students can branch out and find different ways to write their drum parts.



This notation key shows you which notes play which part of the drum kit.



Here is a simple rock drum beat for your students to practise first

15 minutes

Record

Here are the steps students can follow to record a simple rock beat:

1. Select a drum pack.
2. Find out where the bass drum, snare and hi-hat sounds are played on your MIDI keyboard. There will mostly likely be different versions of each instrument in your drum pack. Play around with them to decide on the ones they like.
3. Set the tempo to 90 beats per minute.
4. Make sure the click is on.
5. Ensure that the drum instrument is armed. This will enable recording.
6. Practise playing the bass drum part along with the click. Once this is feeling comfortable, record four bars of the bass drum.
7. It should sound like the Rock bass drum audio track.

- Audio interface – to record any live vocals or instruments.

8. Then practise playing the snare drum part along with the bass drum part with the click and record it over the top of the bass drum part. This should sound something like the Rock bass drum and snare audio track.
9. Repeat this process with the hi-hat part. This should sound like Rock bass drum, snare and hi-hat audio track.

Always make sure that you regularly save your work!

Some students may be able to play more than one part at a time but the beauty of using MIDI means that you don't have to be able to do that – it is fine to record one part at a time.

Once students feel comfortable recording a simple rock drum beat show them how to play a simplified version of the beat that Mo Komba used in the video and ask them to record their own version. See the notation below or, if you prefer, share the Mo Komba's Beat audio track to encourage students to make the beat by ear.



Notation for Mo Komba's beat, playing only the bass drum and snare parts

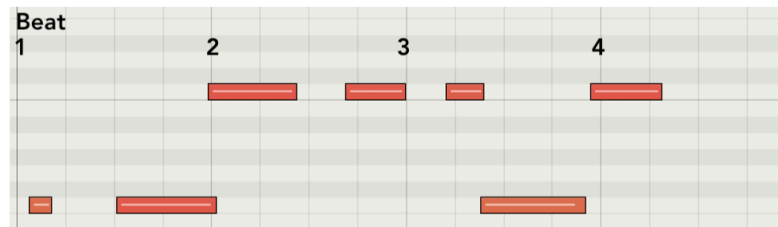
Even though students are able to play each part of the drum beat separately, there still may be some parts out of time. This is where quantising comes in handy.

15 minutes

Quantising

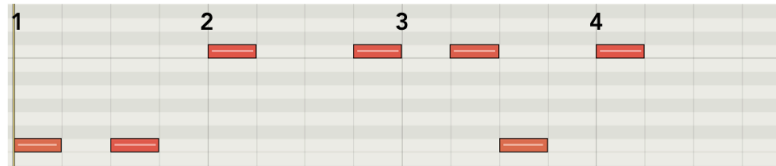
Using the information below, explain to students what quantising means.

Quantising is the process of locking notes to a particular tempo grid. This is usually done to make sure they are in time with the beat. As Mo says, "Make sure the timing is right because the groove is the most important thing".



In this screen shot of Mo Komba's beat, the MIDI notes are not quite in time.

Point out that the beginning of some notes are not quite on the grid lines. Students can use the DAW quantise function to adjust the start and the ends of these MIDI notes to ensure they are in time.



In this screen shot of Mo Komba's beat, the MIDI notes have been adjusted to be in time.

Once students feel comfortable creating MIDI drum beats, go back to the audio drum loop that they chose and ask them to create a MIDI drum beat that they think will complement their drum loop. Encourage them to play along with the drum samples until they feel comfortable with the pattern they have chosen and then record it into the DAW. Once they have recorded their MIDI drum parts they can go through and quantise the timing of the drums.

Extension Activity

In the video, Mo used a technique where he created additional layers of drum hits using different sounds from the MIDI sample pack. This means that the music piece has additional drum sounds featured at different times in the audio track to build tension and momentum in the song. Have students use the following steps to create more layers in their drum beat:

- Create a new MIDI track with a drum sampler instrument in it.
- Find out where all the different snare sounds are played on your MIDI keyboard and pick a new snare sound.
- Replay your existing track and try playing the snare sound along with it. Play the sound for about two beats in each bar.
- Once this sounds good record it.
- Create another MIDI track with another drum sampler instrument in it. This could be a percussive instrument such as tambourine, shaker or maracas.
- Pick a pattern to play on this percussion instrument and practise playing it along with the existing track.
- Once this sounds good record it.

Course: Sound Bites

Lesson Three: Create a Rhythm Track

Learning Area: The Arts **Strands:** Music

Time: 60 Minutes

Year Level: 7-10

Content Descriptors 7-8:

- Experiment with texture and timbre in sound sources using aural skills (ACAMUM092).
- Develop musical ideas, such as mood, by improvising, combining and manipulating the elements of music (ACAMUM093).
- Structure compositions by combining and manipulating the elements of music using notation (ACAMUM095).

Content Descriptors 9-10:

- Improvise and arrange music, using aural recognition of texture, dynamics and expression to manipulate the elements of music to explore personal style in composition and performance (ACAMUM099).
- Manipulate combinations of the elements of music in a range of styles, using technology and notation (ACAMUM100).

Learning Focus:

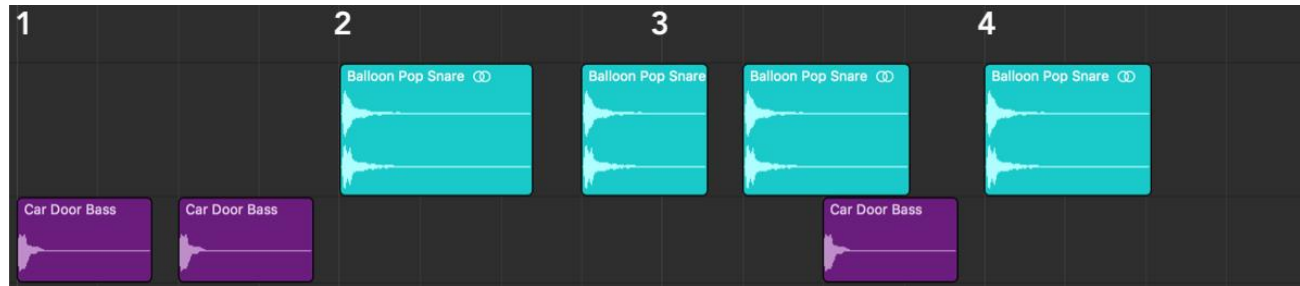
- Students create a rhythm track using sound effects.

Time	Teaching and Learning Strategies	Preparation and Resources:
5 minutes	Introduction As well as audio and MIDI loops, many DAWs come with sound effects. Instead of using drum sounds to create a rhythmic pattern for a song explain that students will create a rhythmic pattern using sound effects. Discuss this with students and ask them to think of songs they know where sound effects are used to create a rhythm to share with the class.	Relevant online resources • Create a Rhythm Track Using Sound Effects activity sheet • Sound Effects Beat audio track • Sound Effects Beat with EQ audio track Additional resources required • DAW (Digital Audio Workstation) • Audio interface – to record any live vocals or instruments. • Royalty Free Drum Loops • MIDI controller
45 minutes	Create a rhythm track Hand out the Create a Rhythm Track Using Sound Effects activity sheet. You might like to demonstrate the process to students before they begin to create their own rhythm track. To begin, encourage students to think about the qualities of each instrument in a drum kit. For example, the bass drum keeps a steady beat, has a short attack and has a low sound. Challenge students to identify low sound effects in their DAW. For example, closing a car door can be a low sound. Next, students need to find a low sound like that and place it on the grid where the bass drum would usually go.	

The snare is a higher sounding instrument, which also has a short attack so students will need to select a quick, high sound effect for this such as the sound of a balloon popping.

Here is a version of Mo's simplified beat using a car door slam and a popping balloon:

Play the Sound Effects Beat audio track as an example.



Here is what the audio sounds like in the DAW

Remind students that they can filter out the higher frequencies using an EQ plug in. Play the Sound Effects Beat with EQ audio track as an example.

If students don't have the sounds that they want in their DAW encourage them to record them around the classroom. For example a snare sound could be made by tapping your desk with a ruler. The bass drum part could be a recording of a book slamming down on a table.

Making drum beats out of sound effects ensures that students get a lot of practise editing audio files in their DAW.

- Electronic music examples

10 minutes

Share and reflect

Using the below questions as a guide, ask students to reflect on their creative process and consider playing back any recordings that they have created.

- What do they like about the music they created?
- Discuss with the students what they think makes a good drum beat – i.e. where to place the bass drum, high hats and snare?
- What was challenging about it manipulating the audio and playing MIDI drums?

Course: Beatmaking with Mo

Lesson Four: Add Musical Layers

Learning Area: The Arts **Strands:** Music

Time: 60 Minutes

Year Level: 7-10

Content Descriptors 7-8:

- Experiment with texture and timbre in sound sources using aural skills (ACAMUM092).
- Develop musical ideas, such as mood, by improvising, combining and manipulating the elements of music (ACAMUM093).
- Structure compositions by combining and manipulating the elements of music using notation (ACAMUM095).

Content Descriptors 9-10:

- Improvise and arrange music, using aural recognition of texture, dynamics and expression to manipulate the elements of music to explore personal style in composition and performance (ACAMUM099).
- Manipulate combinations of the elements of music in a range of styles, using technology and notation (ACAMUM100).

Learning Focus:

- Students add musical layers to their tracks including keys, a bass line and vocals.

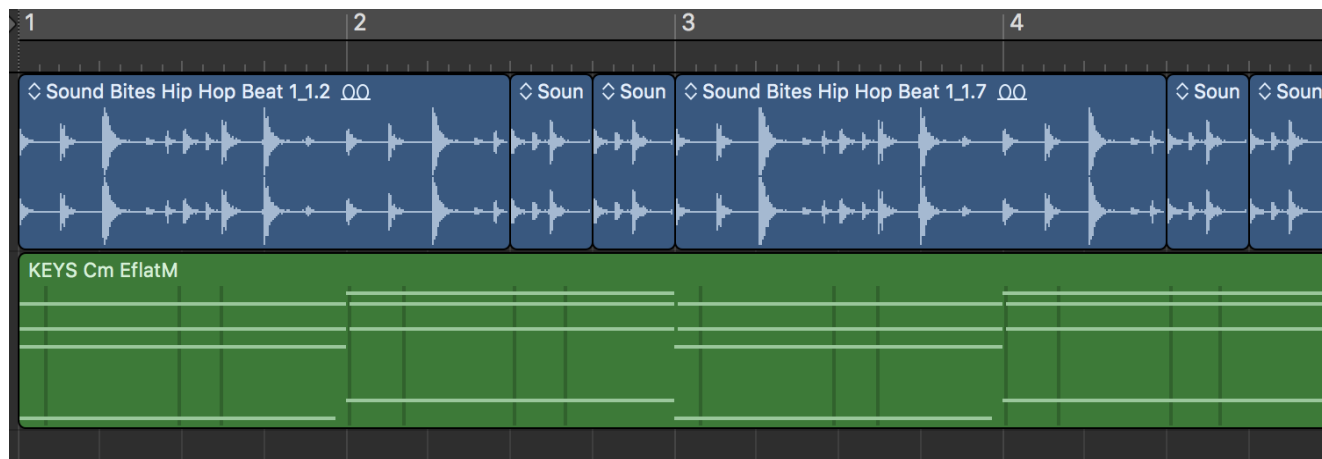
Time	Teaching and Learning Strategies	Preparation and Resources:
10 minutes	Introduction Now that the students have had some experience creating their own drum beats using both audio loops and a MIDI keyboard, watch the Mo Komba video again and discuss anything new that they picked up in the video. Do they now have a better understanding of what Mo is doing as he quickly edits and manipulates the audio and MIDI? Discuss the difference between audio and MIDI again. Ask the students to explain it in their own words. Depending on the skill level of your students, the activities below may need to be delivered over more than one lesson.	Relevant online resources • Beatmaking with Mo Komba video • Add Keys activity sheet • Add a Bass Line activity sheet • Add a Vocal Loop activity sheet • Hip Hop Beat audio track • Hip Hop Beat with keyboard audio track • Hip Hop Beat with keys, delay and tremolo audio track • Hip Hop Beat with keys, delay, tremolo and drums audio track
15 minutes	Add Keys Hand out the Add Keys activity sheet. Using the drum loop created in the previous lesson, including any additional layers of MIDI drums, ensure that students have at least four full bars to work with. Next challenge students to add a keyboard part using a software instrument that works with MIDI notes rather than audio. If you are able to play a keyboard instrument you can play this yourself by following these steps:	

1. Create a software instrument track and choose a type of keyboard sound.
2. Set your 4 bars of drums so that they play on a loop.
3. Choose a simple chord sequence – i.e. one chord per bar.
4. Practise playing your simple chord sequence along with the 4 bar drum loop.
5. Record the chord sequence.

If you made a mistake or you didn't like your performance you can undo the recording and try it again, or you can quantize the MIDI notes so that the timing of the notes they are playing sound the way you would like them to. Remember that listening and experimenting is encouraged.

If you do not play the keyboard you can use MIDI loops from your DAW library or try some of the MIDI loops provided with this lesson.

Alternatively, the below example uses the Hip Hop Beat plus an organ playing a C minor chord followed by an E flat major chord. To listen, use the audio track called Hip Hop Beat with keyboard audio track.



Hip hop beat with organ sound

Extension: Alter the Keys

If students have advanced music production skills, encourage them to add effects to their rhythm using the Filter, Delay or Tremolo plugins.

- Hip Hop Beat with bass line one audio track
- Hip Hop Beat with bass line two audio track
- Hip Hop Beat with vocal loop audio track
- Hip Hop Beat with vocal loop with big reverb audio track
- Hip Hop Beat with vocal loop with big reverb and distortion audio track
- Access to royalty free MIDI loops and samples

Additional resources required

- DAW (Digital Audio Workstation)
- Audio interface – to record any live vocals or instruments.
- MIDI controller

15 minutes

Add a Bass Line

Hand out the Add a Bass Line activity sheet to guide students through the process of adding a Bass part to their loop. A great way to start adding a simple bass part is to play the bottom note of the chords that you have chosen.

In the example above a C minor chord is followed by an E Flat major chord so the bass line can start by simply being the notes C and E Flat.

Listen to Hip Hop Beat with bass line one audio track to hear what it sounds like with a C on the first beat of bar one and an E flat on the first beat of bar 2.

It can work well to add bass notes in the same spots as the drum part. In the example below the bass notes have been placed on the first two drum beats in the bar and then the last drum beat. Play Hip Hop Beat with bass line two audio track to hear what this example sounds like.

The screenshot shows a digital audio workstation (DAW) interface. At the top, there are four measures labeled 1, 2, 3, and 4. Below the measures, there are two tracks. The first track is labeled 'Sound Bites Hip Hop Beat 1_1.2' and 'Sound Bites Hip Hop Beat 1_1.7'. The second track is labeled 'KEYS Cm EflatM'. The piano roll for the keys track shows chords for measures 1, 2, 3, and 4. The bass line track, labeled 'Simple Bass Line 2', shows notes placed on the first two drum beats in the bar and then the last drum beat.

Hip hop beat with organ sound and bass line

Encourage students to take some time to experiment with different bass lines from their DAW loops library.

15 minutes

Add Vocals

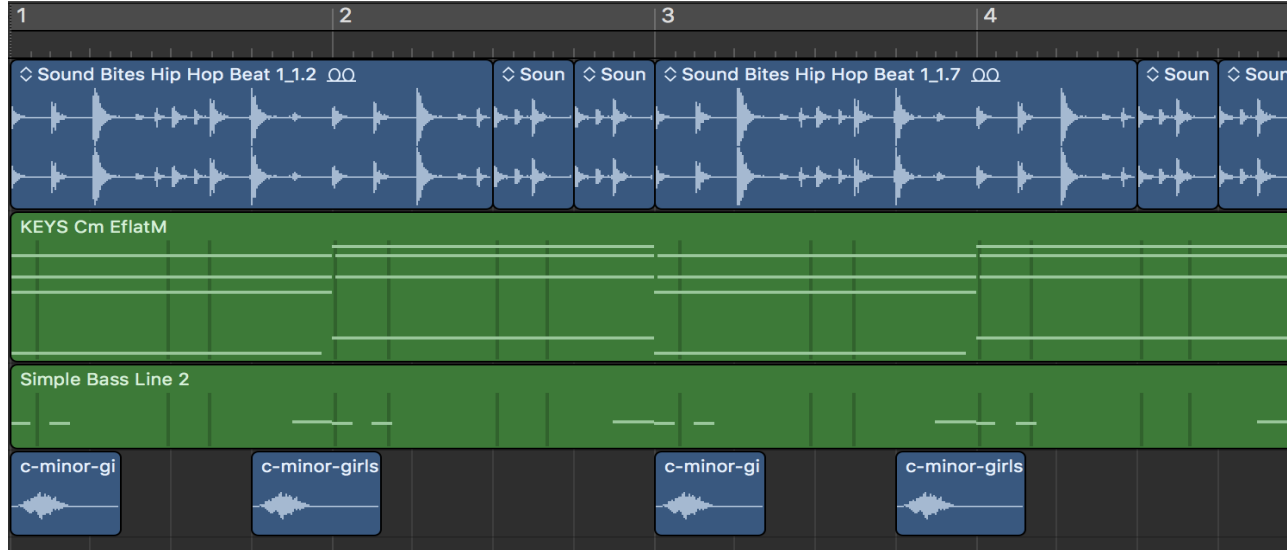
Hand out the Add a Vocal Loop activity sheet. Explain to students that the final step in the process is to add a vocal loop.

Students can find vocal loops in the loop library of their DAW or record their own vocal loop.

Demonstrate the following process to students:

1. Create an audio track in your DAW.
2. Make sure this audio track is connected to a microphone and the track is armed.
3. Set your 4 bars to play on a loop and practise singing over the top.
4. When you feel comfortable record in a short vocal phrase. If you made a mistake or you didn't like your performance you can undo the recording and try it again until you are happy. Always make sure that you regularly save your work!
5. Try adding some reverb to the vocal loop using a reverb plugin.

Here is the example track with a vocal sound added. Play Hip Hop Beat with vocal loop audio track to hear what the vocal sounds like.



Hip hop beat with organ sound, bass line and vocal

5 minutes

Listen to Hip Hop Beat with vocal loop with big reverb audio track to hear what it sounds like with reverb and Hip Hop Beat with vocal loop with big reverb and distortion audio track to hear what it sounds like with added distortion.

Share and reflect

Discuss the process with the students

- What worked?
- What was difficult?
- How could the process be improved?
- How did using a DAW make creativity easier?
- How did using a DAW make creativity harder?