

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

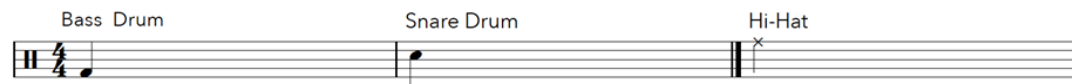
So what is the difference between MIDI and audio?

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

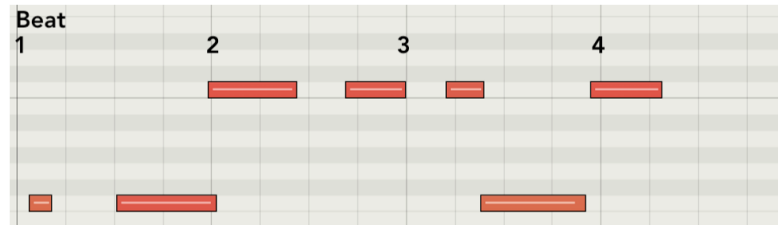
Even though students are able to play each part of the drum beat separately, there still may be some parts out of time. This is where quantising comes in handy.

15 minutes

Quantising

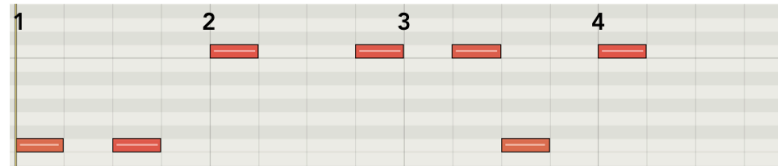
Using the information below, explain to students what quantising means.

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.