**How To Make A Beat**

National Standards: 1, 7-8, 10-11

Serato Studio is professional-level music production software called a Digital Audio Workstation (DAW) renowned for its simple-to-use workflow, modern music-theory tools, and large royalty-free sound pack library. Designed for producers of all levels, Studio removes the steep learning curves and technical roadblocks from music production.

For teachers, the combination of ease-of-use, speed, and professional grade output make it a great learning tool for the classroom. For students it is a fun and productive experience — no matter their previous experience in music production.

With innovative features, such as the ability to instantly generate complex and editable drum patterns or create intricate instrument arrangements that are kept in key, Serato Studio helps new users to start making music easily.

In this lesson we will be detailing how you can use the free Serato Studio education package (no fees, subscriptions, or automatic renewal) to teach your students how to quickly make a high-quality song by creating a layered ‘loop’ and expanding it into a full track.

**Key Points in the Article:**

• The four steps to creating a beat discussed in the lesson are as follows: make a beat; get sampling; add an instrument; and arrange and export.

• Serato Studio is an easy-to-use tool that enables users to make a quick beat. (For a full slate of teaching resources from Serato Studio, visit <https://campaign.serato.com/studio-teaching-resources/>.)

• One you have a beat crafted, it’s easy to change the speed (beats per min or BPM) and key of a track in Studio.

**Begin**

Review vocabulary words from the article:

• SAMPLING: digitally encoding music or sound and reusing it as a piece of a composition or recording.

• SEQUENCER: a programmable electronic device that stores sequences of musical notes, chords or rhythms and transmits them to an electronic musical instrument.

• LOOP: a repeating section of soun d material.

• BPM: "Beats per minute" - a term for measuring the tempo of a piece of music.

**Discuss**

**Step One: Make a Beat**

Studio Studio’s drums are programmed in an easy-to-use step sequencer that operates by dividing a measure into a predetermined number of divisions or ‘steps’. Each step can then trigger notes and control parameter values (such as the velocity of a note).

When starting a new session, you will be presented with a ‘Studio Drum Kit’ loaded as default in the step sequencer (top right of the screen). Other kits and sounds can be selected from the bottom left library tab ‘Drums’ to select another pre-prepared kit from ‘All Drum Kits’. Alternatively, you can download 200+ professional drum kits as part of Studio’s free sound pack library (<https://serato.com/studio/sounds>).

If you wish to create a unique combination of drum sounds, you can simply choose to mix and match individual sounds and create a brand-new kit; this is achieved by finding a ‘one-shot’ sound from the library and then dragging it to the ‘pad’ on the left-hand panel (numbered 1-16).

For quick results, encourage your students to trigger the pads by either clicking on them or pressing the associated number or letter on the keyboard. This will play the associated drum sound (ie… a kick, snare, h-hat) or if you have a MIDI keyboard or controller, these can also be used to trigger the sounds.

Please note: The drum sequencer in Serato Studio is set to loop around a 1-bar pattern by default, but this can be extended by clicking on the + icon in the parameter above the sequencer that says, ‘Scene 1 Size’. When you click on the + icon it will double the length of bars. So, the options you have for the length of your sequences are: 1 bar, 2 bars, 4 bars or a maximum of 8 bars.

Once your students are happy with the drum kits, they can simply start clicking within the sequencer to create a beat pattern. If they wish to skip this step, they can auto-generate a fully comprised drum pattern from the drop-down ‘make beats’ genre menu at the top of the sequencer. They can then edit the sequence—as well as changing BPM—to make it their own.

**Step Two: Get Sampling**

Sampling is a fun and fast way of making music and is the backbone of some of the world’s most popular hip-hop and pop music tracks. It involves manipulating audio files (samples) and then arranging them in a new pattern in the sequencer.

Once you are happy with your drums, try sampling by clicking on the ‘Add Sample’ button (below the sequencer) to open a Sample Deck.

To begin, choose a sound from the Audio Samples library tab (bottom left) or from your own library of sounds and drag it into the Sample Deck. Once the sound is loaded, a colored waveform will generate and will automatically be ‘chopped up’ with adjustable cue points, each assigned to one of the 16 pads. This will allow you to ‘play’ a sample like an instrument or speed up, slow down, shift the key, or even reverse different elements.

Like the drums, you can now draw notes into the sequencer to craft your song. You can even paint in a single note the whole way across the sequencer if you want to just loop your sample!

For a fun learning activity, ask your students to try manipulating samples in different ways. By changing the key or even slowing a sample down they will be able to hear, in real time, how slight changes can have a huge effect.

**Step Three: Add an Instrument … or Two**

As with the Sample Deck, you can simply click the ‘Add Instruments’ button below the sequencer to add an entire new element to your production.

The Instrument Deck gives you access to Studio’s wide range of built-in instruments including Strings, Piano & Keys, Pads, Mallets & Percussion, Lead, Guitar and Bass. These are accessed via the Instruments section of your library.

When you add an instrument, it will automatically play in the key that your project is set to, but this can be disabled by selecting the ‘Play In Key’ icon below the instrument.

Please note: If you have third-party VST instruments, these can also be accessed when you are using Instruments; simply navigate to the ‘Plugins’ section of the browser.

Draw the notes into the sequencer (or if you have a midi keyboard, you can play in directly), and try using the Auto Chord option (located at the top left of the 16 pads) to add depth to your song.

**Step Four: Arrange and Export**

Once you’ve layered all the elements, you will have created a ‘loop’. In Studio this is called a ‘scene’.

Scenes are the building blocks of songs in Serato Studio, they allow you to quickly pull together all the elements of a song into a single section and easily replicate and edit the elements.

We recommend spending time on explaining the function of Scenes: Think of them as vertical slices of your song: a collection of the drum sequences, instrument sequences and any samples you’ve used.

Now that you have all the elements collected, you can expand your track by creating a new scene. Simply click one of the ‘+’ icons below the sequencer to copy the scene you have created.

In your new scene you can add or remove elements to build out the song (for instance, you may wish to remove the drums from one scene to create a chorus or add instruments to another to make a hook) with your final collection of scenes potentially looking like this:

* Intro
* Hook
* Verse 1
* Chorus
* Hook
* Verse 2
* Outro

When all your scenes have been created, click on the Song View tab at the bottom right of the screen to reveal the arrangement section. Here you can simply drag and drop the scenes from below the sequencer into Song View section and arrange them as you please. Once you and your students are happy, simply export the final song as either a WAV or MP3 file, and you’re done- producing a track has never been easier!

To get free full copies of Serato Studio for you and your class for a year (no fees or subscriptions) along with access to additional teacher resources including lesson plans, tutorials, projects and more, visit [Serato.com/Studio-Teaching-resources](http://serato.com/Studio-Teaching-resources)

**Expand**

**Genres, Keys and BPMs**

It’s easy to change the speed (Beats Per Min or BPM) and key of a track in Studio. Have your students experiment with changing the key and speed of their song in real time (top left of the screen), to help them discover the sounds they love.

Traditional genre BPMs:

* Reggae / Dub: 70BPM
* Indie Rock: 90BPM
* Hip Hop / Rap: 95BPM
* Dancehall / Latin / R’N’B: 100BPM
* House / Techno: 125BPM
* EDM: 128BPM
* Trap or Dubstep: 140BPM
* Drum N Bass: 175BPM

**Finesse with Flourish**

If your students are more advanced, they may wish to experiment with manipulating the individual elements of the song. While not required to make a basic song, Serato Studio has a number of professional features that can add depth and elevate their productions. This includes a channel mixing strip in the center of the screen to adjust each sound, a library of built-in FX (accessed by clicking the button at the top left of the screen), a full mixing view (also found at the top left of the screen), automation, and the ability to record—through the Song View tab—from any source, including microphones, instruments, and even vinyl for sampling. How to use these features are covered in our free tutorials and lesson plans at [Serato.com/Studio-Teaching-resources](http://serato.com/Studio-Teaching-resources).