The easiest way to compose a song in a DAW is with prerecorded **loops**. The loop can be anything from a simple bass guitar riff to an entire horn pattern or rhythm section groove. Loops can be an audio recording of live instruments or MIDI files.

Loops include information to help you find what will fit your musical style and might work well together. This information includes format (audio or MIDI) **Ⓐ**, loop name **Ⓑ**, and may include tempo expressed in **beats per minute** (**BPM**) **Ⓒ**, the key (if it is a pitched instrument) **Ⓓ**, and sometimes the length or meter of the loop.

Ⓐ	Ⓑ	Ⓒ	Ⓓ
🎤	Jazz Saxophone Riff 1	90	E♭
🎤	Jazz Saxophone Riff 2	90	E♭
🥁	Rock Drums Groove 1	120	
🥁	Rock Drums Groove 2	120	

Open and examine the **loop library/browser** in the project you worked on before. What information is included with the loops you see listed?

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Explore the loops by clicking on them in the library to hear how they sound. Write down the names, locations, and information for three loops you like, and why.
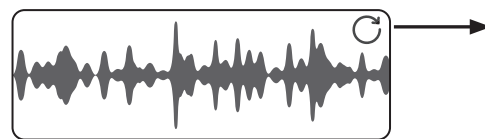
**1** _____

2 _____

3 _____

Drag a loop into the workspace to create a new **audio** or **MIDI region**. You can edit the region in several ways:

Repeat a region—hover your mouse over the top right side corner of a region. Click on this and drag to the right to repeat the region as many times as you want.

Shorten a region—hover your mouse over the bottom left or right corner of a region. Click and drag to the right or left to shorten the beginning or end of the region.
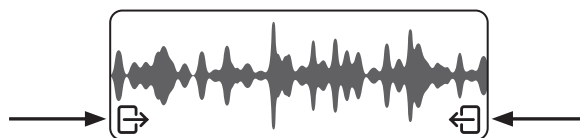
Copy, paste, or cut entire sections of music—click your mouse in a blank section of the workspace. With the mouse clicked, drag over the region you want to work with. Once the regions are highlighted, you can copy, cut, or paste just as you would with other software on your computer.
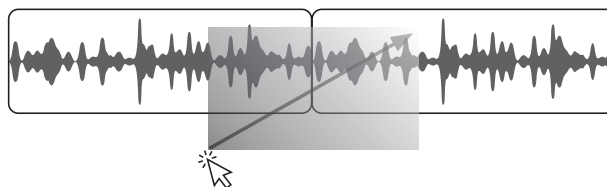
Watch an online tutorial about repeating, shortening, and copy/cut/pasting regions in your DAW, as it may differ from the above example. Describe the favorite editing technique that you learned.

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Apply your new knowledge by combining and editing loops in any ways you choose. Press **play** ▶ in the transport to listen to your creation. After you create something that sounds good, **save** your work.

💡 You may need to create a **new track** (**audio** or **MIDI/virtual instrument**) before you drag a loop into the workspace.

Now, create your own groove by combining kick drum, snare drum, and hi-hat/ride cymbal loops. You may also experiment with adding tom **fills** or cymbal **crashes** to highlight important moments in the groove, such as when a section repeats or is about to end. Create a new track for each loop, then click and drag your favorite loops onto the tracks to create new regions. Press **play** ▶ in the transport to listen to your creation. Write down the combination of loops you liked best and the style of song your loop groove would fit.

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You can also create a custom drum groove from scratch by using the **piano roll editor** (or simply **editor**) that you learned about on pages 2–3. Recall that it includes a vertical picture of a piano keyboard Ⓐ, or you may see drum kit graphics instead. Sounds are assigned to each piano key or graphic. The names of the sounds may or may not appear.

The **piano roll grid** to the right of the keyboard is where MIDI notes live Ⓑ. Rectangles show the placement of each note in time, as well as each note's duration, horizontally from left to right Ⓒ. The numbers at the top of the grid show the start of each **measure** (**bar**) of music and each **beat** of the measure (for example, **1.3** = measure 1, beat 3). In this illustration, each grid box equals one **eighth note**, but that might be different on your GUI depending on how zoomed in or out you are. The gray eighth notes shown above the grid are for reference only and typically would not appear in your GUI Ⓓ.
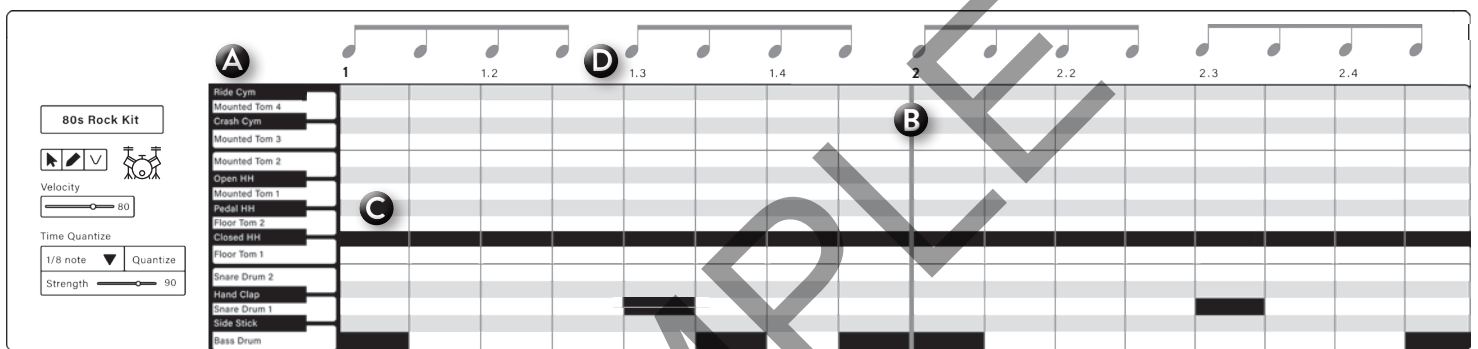
Explore your DAW to find the piano roll editor. Write down the steps needed to open it.

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You can add notes in the grid using your mouse, or you can play them from another MIDI input device such as an external keyboard or percussion pad. Notes can easily be shorted or lengthened, or dragged from place to place.

▶ See ways to enter and edit notes in the editor using your mouse, a MIDI keyboard, or a MIDI pad ⇒ **www.kjos.com** ⇒ **Kjos Multimedia Library**.

Now it's your opportunity to experiment with combining drum sounds in the editor.
1. Open a new project in your DAW and create a MIDI/virtual instrument track.
2. Open the sound/instrument library and choose a drum kit for the track.
3. Open the editor for the track and click the mini piano keys to hear the sound assigned to each key (some may be empty).
4. Experiment with adding and altering notes on the piano roll grid using your mouse. Be creative!
5. Press **play** ▶ in the transport to listen to your creation. You will see the **playhead** move across the screen and you'll hear the notes in the grid **trigger** the selected sounds.
6. Save your work to a location where you can find it later. Name the file so it's easy to identify (for example, "p7_drum_experiment").

Were you successful in completing the steps? Where did you save your work? What did you learn during this process?

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💡 To learn terms such as **measure** and **eighth note**, explore *Master Theory Curriculum Pack Volume 1*. (See back cover for more information.)

When creating an original melody, limiting the pitches you use helps to give your melody unity and focus. In music, we often organize pitches in order and call these groupings **scales**.

C pentatonic scale

The scale begins again on the next C.
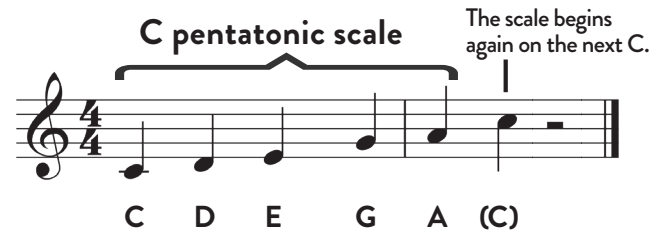
C   D   E   G   A   (C)

You will use notes from the **C pentatonic scale** as the pitch set for your first melody. It includes only five notes: **C D E G A**. Write the C pentatonic pitch names on the piano white keys here.

After **A**, the scale starts over again with the next **C**, one octave higher. This repeating of the notes in each octave is a characteristic of scales.

Write the pitch names on the piano white keys to the left of the grid.

In addition, write the C pentatonic scale names in the grid above each of the note rectangles.

🎧 Listen to the **C pentatonic scale** ⟹ www.kjos.com ⟹ **Kjos Multimedia Library**.

Explore how the C pentatonic scale sounds in your DAW played on various instruments.

1. Open a new project, then create a MIDI/virtual instrument track and choose a pitched instrument.

2. Enter the C pentatonic scale as it appears in the piano roll editor above. Follow the steps on page 11.

3. Create four additional MIDI/virtual instrument tracks.

4. Open the sound/instrument library and choose a different pitched instrument for each track. Choose instruments you have not used before.

5. Copy the **MIDI region** you created in step 1 and paste it into the other four tracks. (DAW **cut**, **copy**, and **paste** commands are usually the same as in other programs, or you may choose them from the **Edit** menu.)

6. Listen to each track one at a time: Click the **solo** button in the **track header** then press **play** ▶ . Experiment with how the octave of the scale sounds for that instrument. Try other octaves by selecting all the notes in the editor, then dragging the scale down or up to start on the next higher or lower **C**.

7. Listen to various combinations of tracks together. Adjust the **volume** of each track in the track header to achieve the **mix** (blend) of sounds that appeals to you.

8. Save your work with a logical file name.

Make some notes about which instruments you liked best and which combinations of instruments sounded good together. Were there instruments that did not sound good together?

💡 See *Master Theory Curriculum Pack Volume 1* pages 47–55 and 72–73 for information on scales.