Ableton

KS3/4/5

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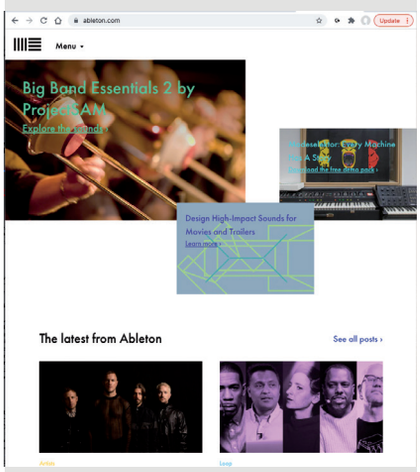
Introduction

Ableton Live is a digital audio workstation that's designed to be both an instrument for live performance and a tool for composing, recording and arranging. There are different versions of Ableton, but this resource refers to Ableton Live Lite. More information on the software, including pricing options, can be found at **www.ableton.com**.

In the classroom, Ableton Live can be used for both composition and delivery of curriculum. It allows teachers to engage students with creative tasks that look at key elements of music, and it's also suitable for classroom composing, particularly at Key Stages 4 and 5.

This resource introduces the basic functions of Ableton, enough so that you'll be able to make music with your class. We'll introduce the software and provide classroom projects that can be used in your teaching, and we'll also think about how Ableton could be used within your own curriculum, to enhance schemes that you may already have in place.

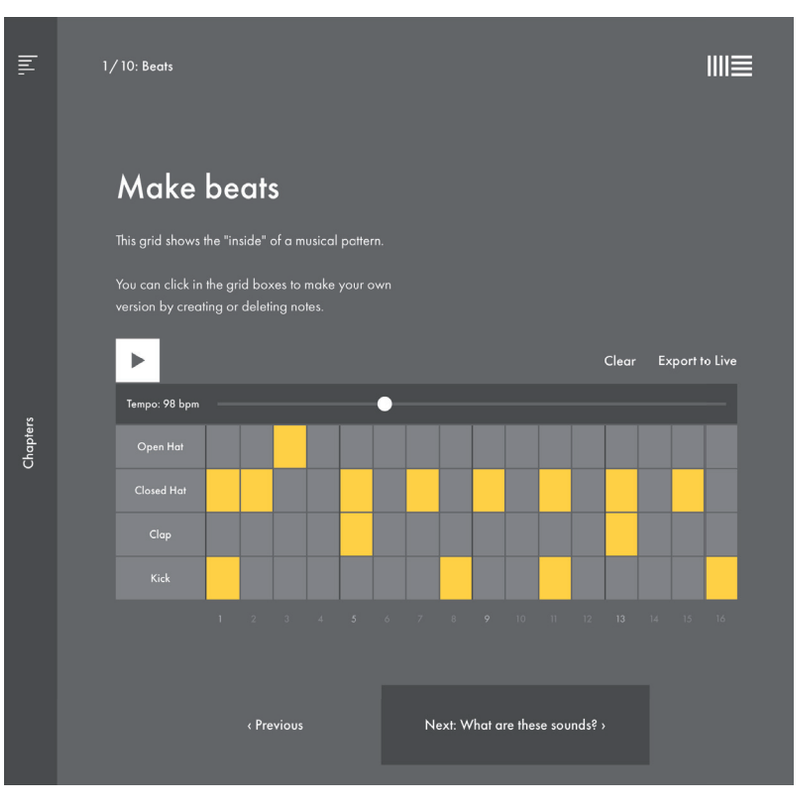


Getting started

Before you even start using the Ableton software itself, there's a set of Ableton lessons that you can first explore online (**https://learningmusic.ableton.com**). The website is entirely free, and doesn't require any specialist hardware or software, but it serves as a useful introduction to the world of Ableton. Even if you don't end up choosing to purchase Ableton, you will almost certainly still find useful material here: Key Stage 3 students will find it an engaging introduction to music making online, and for Key Stage 4 students it provides some necessary reminders of what you can to do with music technology.

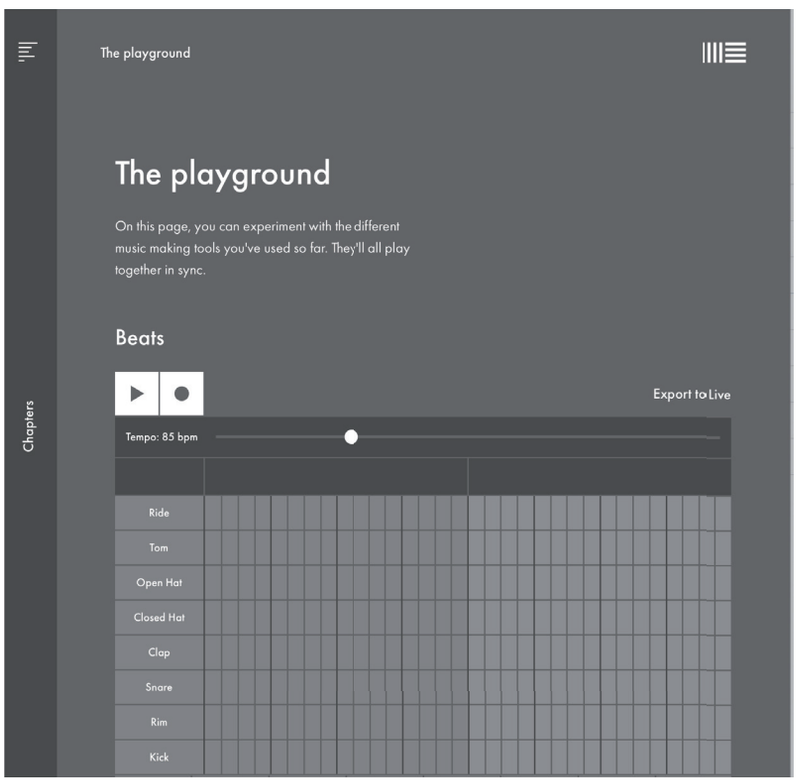
The Ableton website allows students to make simple beats, explore sounds and then start adding pitch. Students can simply work through the website, following the instructions, and if you have a copy of the Ableton software they can also export to it all the ideas they've created on the site.

Usefully, the website also follows the same process outlined in this resource: students start by creating a drumbeat, followed by a bassline, chords and melodies. Following the activities on the site can therefore lead nicely into the projects given here.



Students who are already fairly well versed in composition and music technology might enjoy the 'playground' section of the website (**https://learningmusic.ableton.com/the-playground.html**).

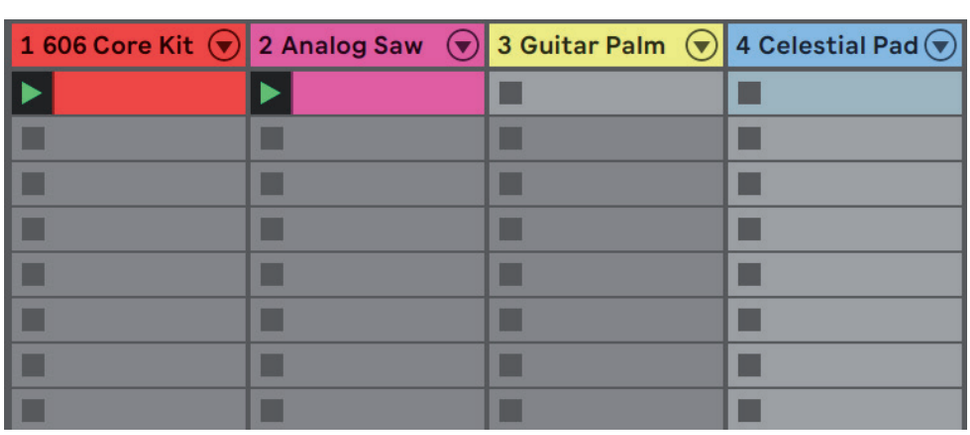
This section brings together all the ideas on the website and allows users to create a full piece of music. The playground could even be used for a stand-alone lesson task, or more generally in composition projects, particularly ones focused more on loop-based electronic dance music.



What's different about Ableton?

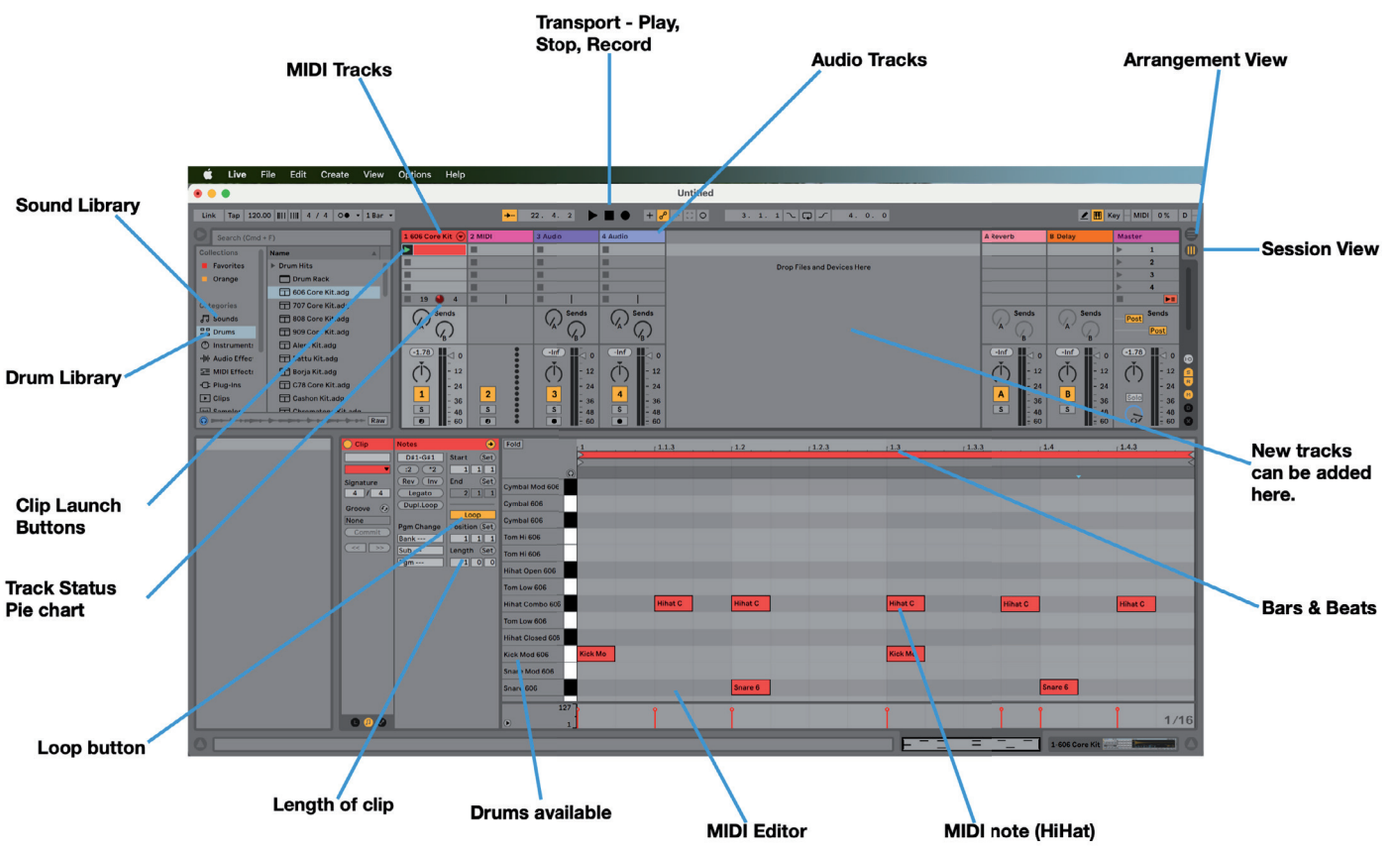
Ableton is different from other DAWs because it's slightly more focused on the creation of ideas. It allows you to create 'clips' that are unique loops, which can then be used to create an overall piece. Using the 'session view', you can chain together ideas in real time.

Students can use Ableton to gather and create ideas, and then 'perform' a live version of their piece by selecting different clips as and when they wish. These clips are very much like the 'loops' that you'd find in other DAWs. But the difference here is that students decide which loops play, and when.



The Ableton interface

Ableton may initially look and feel more complicated than other DAWs. The aim of this resource is to help you understand what you're looking at before you start working on music making with your students. As with any software, it's important that you get to know it well before sharing it with your students.

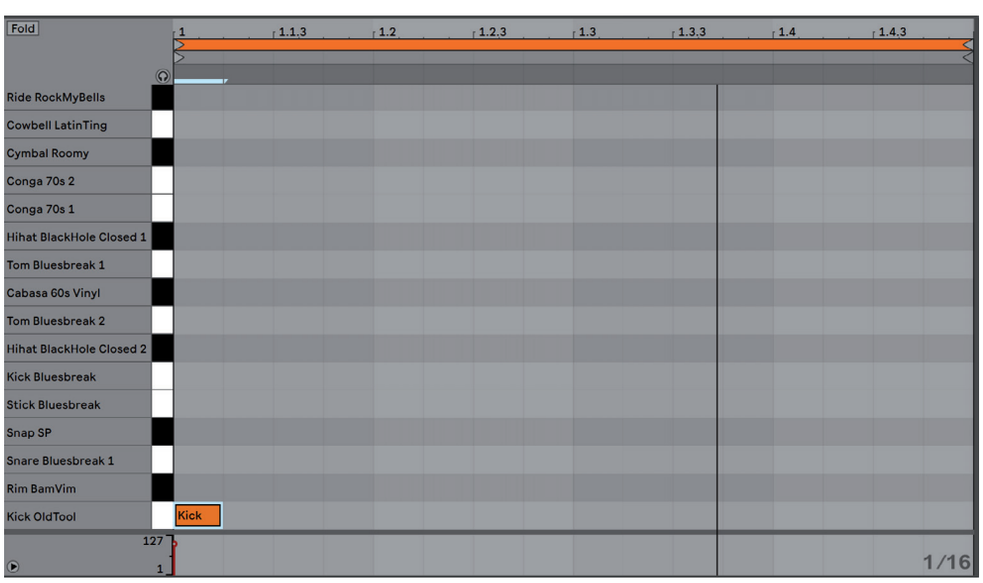


The rest of this resource looks at activities and projects that can be completed using Ableton, including creating a beat, adding a bassline, creating chords, and then composing a melody. These ideas are designed to introduce you to the software and get students composing and creating with Ableton. They are just a starting point, of course, and can easily be developed and explored in line with your current curriculum.

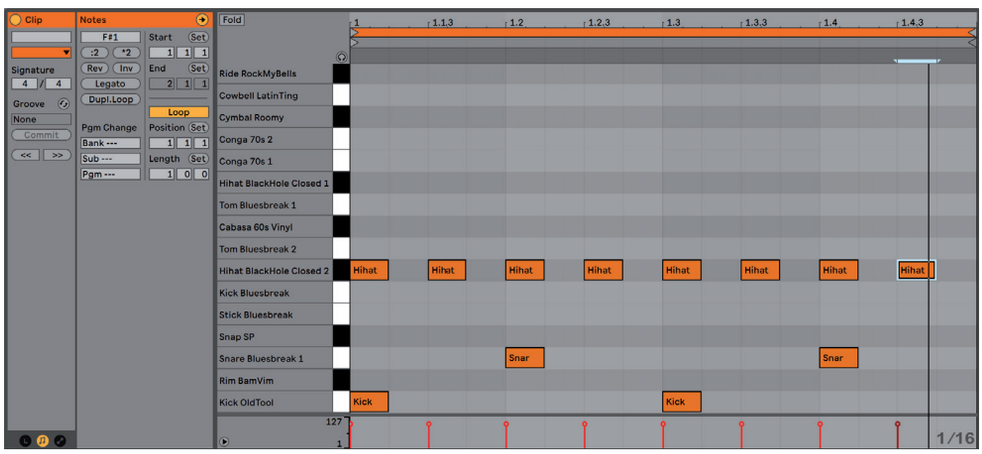
Creating your first drumbeat

1. Launch Ableton and click on the Drums Library on the left-hand side.
2. Click on a drum to hear what it sounds like (this allows you to try out each drum before you select it).
3. Once a drum is selected, click and drag it to a MIDI track. This is a drag-and-drop process, and the drum name will then appear at the top of the MIDI track.
4. A kit will now be loaded into a track, and you can start to add clips to this track. A clip is a short repeating pattern, melody or idea (like a loop in other DAWs). By default it will be one bar long.

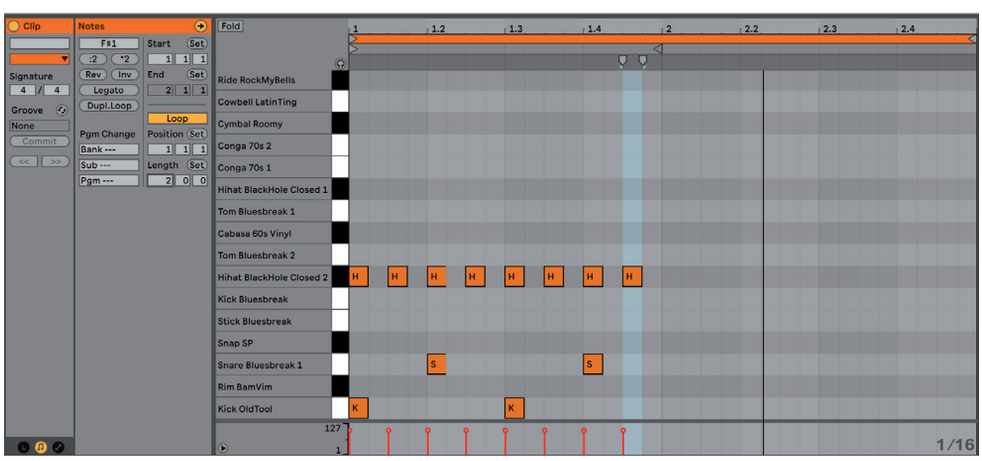
5. Double-click on a clip, and it will open the MIDI window at the bottom of the main window. A grid-style MIDI editor will open, and the drums will appear on the left-hand side. There are several different parameters, numbers and words on the screen – don't be put off by this.
6. Press play on this clip – of course you won't yet hear anything. But the useful thing about Ableton is its live element: you can input MIDI data live, and it will play it back as you edit it. Once the clip is playing, double-click on one of the sections in the MIDI editor window. This will add a note to the drum, and you will now hear something playing.



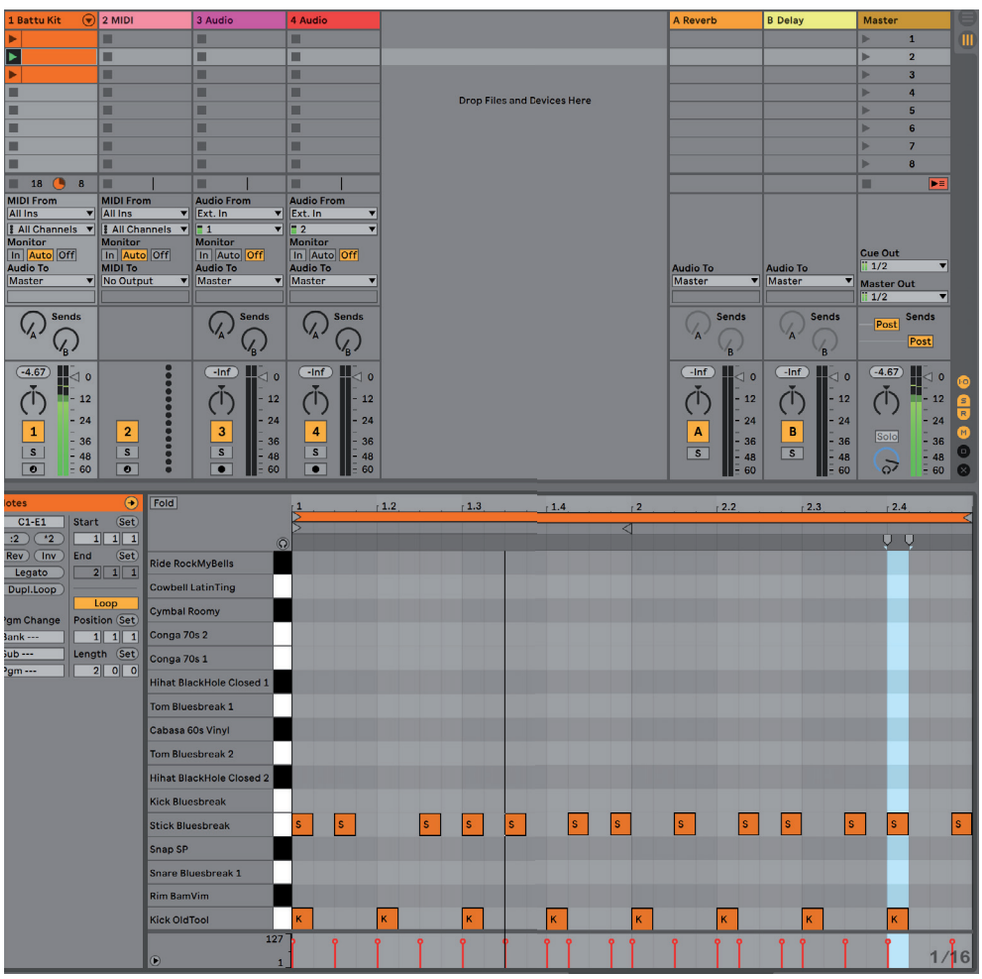
7 Now begin to create a drumbeat by adding more notes to the MIDI editor window.



8 The notes entered will keep playing on a loop, which will be just one bar long unless you change the length, which you can do via the length box, just to the left of the MIDI editor window. Starting with one bar, however, makes it easier for students to gather ideas quickly.



9 There is now one clip on this kit, and seven more can be added. This allows students to create different beats on the same kit. They might even like to create a drum-fill or a drumroll. Each clip or layer will be on the same instrument. Simply double-click on the next clip slot and you can start to input notes to the clip.



10 Once you have assembled and created a few different clips, you'll begin to understand how Ableton works. Each clip is started by pressing play on the clip, and it will continue to play until you either press play on another clip, or press stop on the whole MIDI track. Helpfully, Ableton won't start playing the next clip until the previous one has finished, a feature that allows students to create a unique live performance of the clips they have assembled.

11 Now that one track has some ideas, you can add a second drumkit to the next MIDI track. The clips added to this track can then be played alongside the ideas you already have. This allows students to start building up a piece of music by triggering different clips. In the image below, for example, the Battu Kit is playing its first clip, and the Alert Kit is playing its third clip. Students can trigger any clips at any time, and both instruments will play simultaneously.

12 As we've seen, it's possible to make clips different lengths. This can make the piece more interesting, but it also means that students need to be more aware of how long each clip lasts.

Let's stop and look back at what we've just created. We have two drum kits, and each one has four different clips or ideas. These can be played at different times, and students can choose which clip to play when simply by pressing play. They can choose to play just one kit at a time, or both kits at the same time. Pressing the stop button at the bottom of the track will stop the whole instrument. Pressing the main stop button at the top of the screen will stop all of the clips.

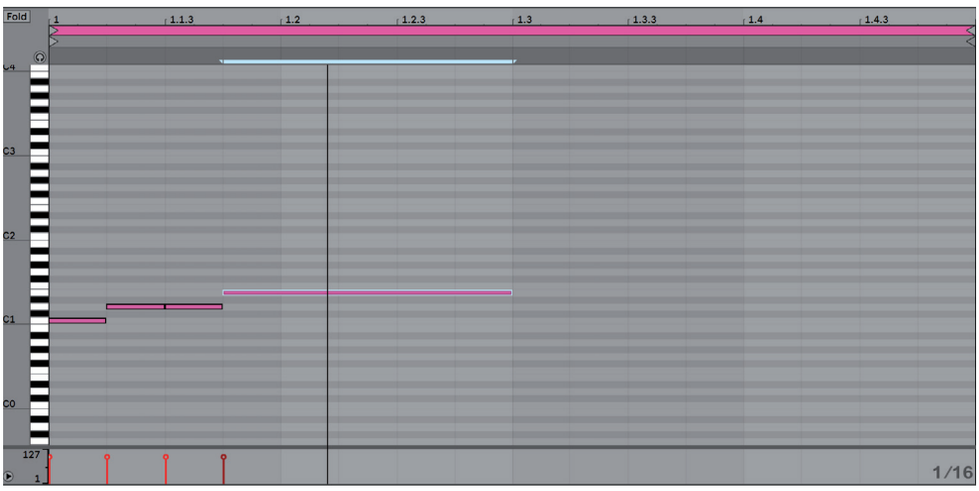
Adding a bassline

Now we have some drumbeats, it's a good time to move on to inputting a bassline. You might have already guessed that you don't need just one bassline (although that's perfectly possible too): like the drumbeats, you can create several and play them as and when you wish.

1 First, find a bass instrument: these can be found and auditioned in the Instruments category on the left of the main window. Select 'Instruments' and then click on 'Instrument Rack'. Now navigate down to Bass. There are several different instruments: once you have one you like, drag-and-drop it onto a MIDI track. By default, there are two MIDI tracks and two audio tracks in Ableton. You can delete the audio ones for now, however, and right-click to add another MIDI track. You should now have the two drum kit tracks and a bass track.

2 Adding a bassline is simple, but it requires students to know what they want to input. At this stage, it might be useful to give students some success criteria for their bassline. They might also use a keyboard to come up with a bassline before moving to Ableton.

3 Once the ideas are generated, double-click on a clip and the MIDI editor will open at the bottom of the screen. The MIDI editor will now look slightly different to how it did previously with the drumbeats: it now has a keyboard on its left-hand side. Now that students are entering pitch, they can use the keyboard to choose their notes. As previously, the bassline will be by default just one bar, but the length can be changed in the Length box in the left-hand box. To input notes, double-click on the grey lines to the right of the keyboard. Each note will be a semiquaver by default: to make it longer simply drag the coloured line to the right. Pressing play on the clip will mean students can hear what they are adding live: as before, it will simply keep looping round.



4 Clicking on the 'Fold' button in the top left of the MIDI editor will focus in on exactly which notes have been added to the bassline, allowing students to see more closely what they've created.

5 Once their bassline clip is completed, students can try playing it at the same time as their drumbeats. If they've created different options for drumbeats, they can try the bassline and beats in different combinations.

6 As mentioned previously, Ableton can create different bassline clips, allowing students to try several bassline options and play them against different beats. Ultimately, they'll be able to put together a 'live' performance of their beats and basslines.

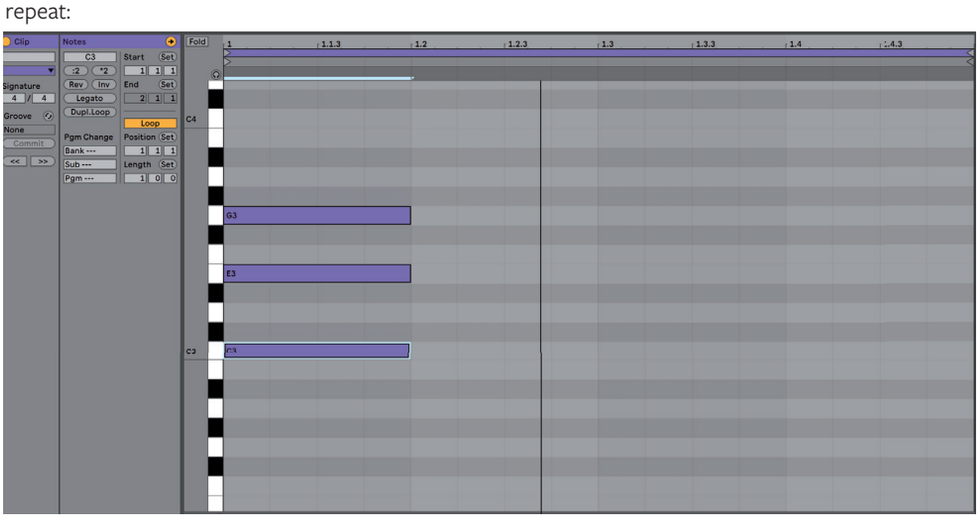
Adding a melody and chords

Adding a melody follows the same process as adding a bassline. The only difference to bear in mind is that you might want your melody to be longer in terms of bars, and you may not want it to be as repetitive as the bassline. Students can try breaking their melodies down into different, separate clips, and then playing them as and when they wish. Ableton offers a wide range of instruments, which students can choose from the list in the 'Instrument Rack'.

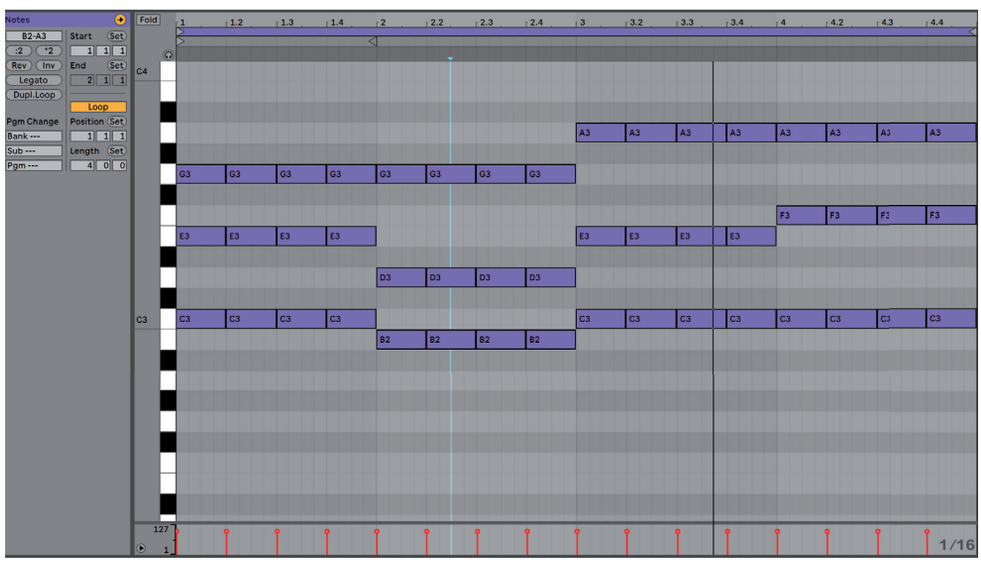
And since we're working with MIDI, once ideas have been created, you can easily assign them to a different instrument. If you change your mind about the bass guitar sound and want the bassline on a piano, for example, there's no need to re-edit: just change the instrument. Simply drag and drop your new chosen instrument onto one of the MIDI tracks.

Adding chords is also a relatively simple process, and very similar to the steps above for bassline and melody. The key difference is that in the MIDI editor, you'll be laying notes on top of each other to form chords. Students should plan a chord progression in advance, and make sure that it fits with their basslines.

Here's the MIDI editor with a C major chord. The chord is on the first beat of the bar, and that bar will repeat:



Here's an example of a complete chord pattern that uses C major, G major, A minor and F major (I-V-vi-IV in C major). This is a four-bar chord pattern. The length box is showing 4, which means that this clip will last four bars and then repeat.



Everything fitting together

When using Ableton, it's crucial that students remember that to use the clips effectively, they need to work together musically. The chords must fit with the bassline and the melody. Once they've made sure that they do, students can press play on any clip, and it should fit with the overall harmonic and melodic structure. Remember that Ableton ensures that all clips begin at the same time, and that it loops automatically.

Project 1: a four-chord song

The ideas above have explained how to input drums, bass, melody and chords. It should be clear by now that Ableton is based around building up a bank of clips. These clips can now be used in a project to create a four-chord song. The I-V-vi-IV chord progression created above is a common starting point, and students can easily add a bassline and drums to it, and even record in a melody.

Ableton's unique power, however, lies in its ability to aid live composition, where students can try out ideas and layer together different clips while the music is playing. There are two possible ways to approach this project.

Option 1

For this option, you should create the chords for the students in advance, and then set them the task of developing a bassline and drums.

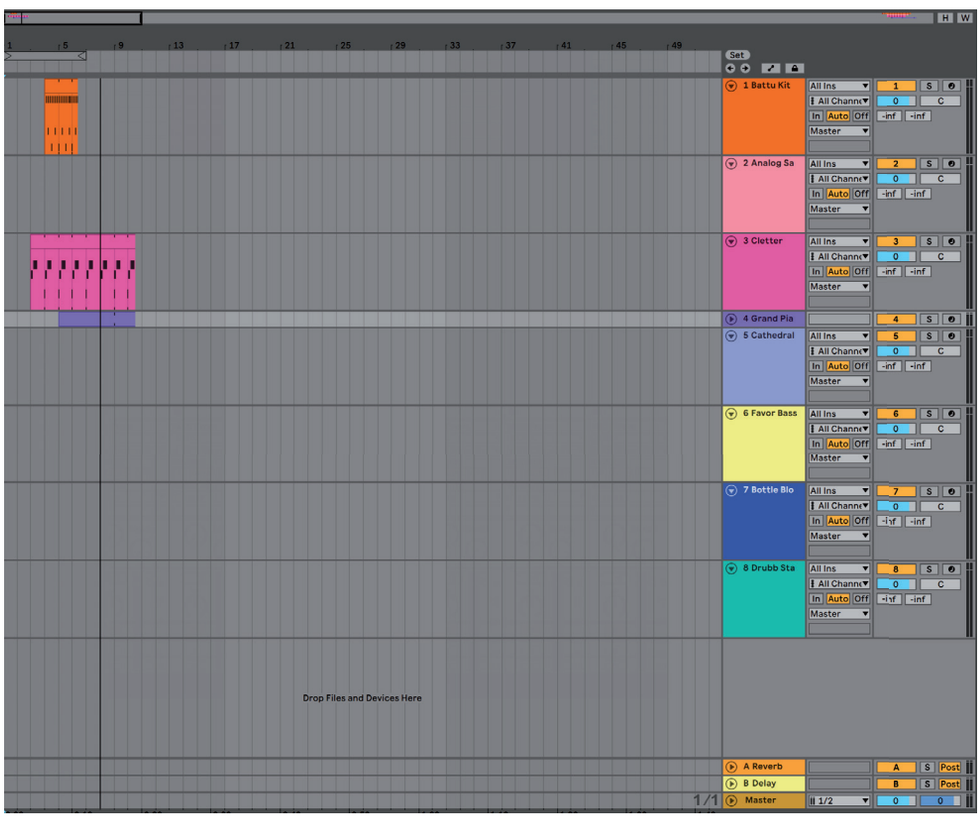
The value of this approach is that all students can then share their work with you, and you can load several ideas into your teacher Ableton. Once everything is gathered, try calling students to the front of the class to create their own live performance, one that brings together ideas from across the whole class. If you've already ensured that everything fits together, by selecting different clips, each student will create a unique performance, one in which all basslines, melodies and beats work perfectly with the chords provided.

A full Ableton looks something like this:

Each one of those clips is an idea shared by a student and then imported in to Ableton. Each of the eight columns is one instrument, and in each of those there are eight clips, so there are 64 musical ideas in total, and all in one place. Pressing play on any clip will trigger the loop.

Ableton allows you to have one clip from each column playing at any one time, meaning a total of eight clips. Students can choose any clip they like, and Ableton will wait until the previous clip has finished before playing.

Using Ableton's Session view, you can record all of these class ideas so that the live class performance isn't lost:



Option 2

The second option is to give students the task of putting together a song from scratch: they choose the chords, and then build up the melodies and basslines. Start with the drums, and then let them create different chord patterns for each section. Ableton's live element means they'll keep hearing the music they input, which in itself will hopefully help them to improve their work as they progress. Each student can aim to create four instruments with eight clips, and then perform their own live version of their piece.

Project 2: ground bass and Purcell

It's easy to think that music technology is all about dance and electronic music. That is of course largely true, but don't be afraid to think more widely: have you ever considered using a DAW to help you teach ground bass? If you're using the Edexcel specification, you might have encountered ground bass at KS4 with Purcell's *Music for a While*, and Ableton can offer a valuable perspective on this piece. Even if not, it can provide an unusual way to approach a key musical concept.

Here are two options for ground bass projects using Ableton.

Option 1

Provide students with a ground bass in Ableton, so that every student has the same ground bass to work with. Their task is to add a bassline, melodies, countermelodies and a rhythm to the existing ground bass. They can choose any instruments they wish, but they must use the ground bass that you've provided.

As with the four-chord song in Project 1, you can then gather all their ideas and create a class performance using your ground bass and their submissions.

This is a valuable way to teach students about texture, layers and harmony. Once you've held a class performance, you can discuss which ideas work best and why. You can explore as a class how a piece gradually builds up and develops, and how each layer needs to be unique. You could, of course, use a well-known ground bass, for example the one used in Pachelbel's Canon, or you could even challenge a student to create one for the class to use.

Option 2

The second option offers a way of unlocking some understanding of the Purcell set work for Edexcel GCSE. Ask the students to recreate and rearrange the piece using Ableton. They will need to create a clip for the ground bass, and then record in the other layers using MIDI. This option will encourage students to explore the piece's layers, thereby gaining understanding of how Purcell created the piece in the first place. Students can experiment with a wide range of sounds for each layer, and see how they can make the original music sound very different in Ableton.

Four quick ideas

1. Create a minimalist-style piece by building up clips and then performing and/or arranging it live.
2. Ask one group of students to create basslines and another to create melodies. They then should swap and build up layers that work with their given starting point.
3. Connect a Launchpad to your computer so that students can use that to 'perform' their finished music. A Launchpad is a square MIDI controller that links to the clips on Ableton. Using a high-spec Launchpad, it will even show the same colours as the MIDI tracks.
4. Provide 'traditional' notation and ask students to 'realise' the music using Ableton. Start with a rhythm and then move onto melodies and chords. It's a useful experience for students to see how music can be presented and created in different ways.

When it comes to using music technology and any DAW, it's of course vital to consider how it will enhance your curriculum. Technology can be helpful with composition work, but only when students understand the process and have the ideas. Ableton can be used to teach certain key musical skills, but it isn't suitable for everything. It's important to look at your curriculum and work out where and when it might fit in.