Getting started with Cubase Elements 10: part two

James Manwaring

Introduction

This is the second part of a two-part resource on Cubase Elements 10. Part one (*Music Teacher*, October 2019) covered the basics of the software, how to start students off, how to get started, creating music using loops, and generating beats and rhythmic patterns. In part two, you'll learn how to create a beat using Sampling, and how to create a chord pattern using Chord Pads.

If you haven't yet worked through part one, it would be advisable to start there. It should give you an insight into the kind of setup you might like to work towards in your classroom. But bear in mind that you only need the Cubase software itself to try the projects in this resource: there are additional bits of hardware that you can use, but it's entirely possible to do these projects straight out of the box.

Theory and technology

Music technology is something that music teachers can easily shy away from. It can be complex, expensive and temperamental. But it's also innovative, exciting and hugely rewarding.

However, we can't simply launch Cubase and forget the world of music that we want our students to be aware of. Here's an example of three bits of music theory that you might like to touch on in the context of Cubase. You might want to build your own theory elements based on your class and any work that you've already completed with them. Make sure you then embed this theory in your Cubase lessons.

1 **Sampling**: simply put, a sample is a short segment of music that has been captured, recorded or created. Sampling is where we reuse this pre-recorded/created sound in another piece of music.
2 **Chords**: a chord is a set of notes all sounding together. There are several different types of chords, the most common of which are triads, made up of three notes. Within a given key signature, there are seven different triads that can be made from the notes of the scale.
3 **Chord progressions**: a chord progression is a pattern of chords in a piece of music. There are different types of progression: some famous ones include the 12-bar blues and cycle of 5ths.

Creating a sampler track

This project builds on the idea of creating a drum beat, and will introduce students to sampling. It can be done on screen, but you may find it easier to use a MIDI keyboard (see part one of this resource for my own recommendation).

By now, students should be familiar with the various different loops and samples that are available within Cubase Elements. These can all be located on the right-hand side in the Media panel (shown below).

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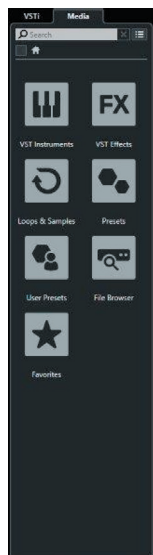
1 Select a loop or sample from the huge number available within Cubase. Choose something you like the sound of, and maybe something that you haven't used previously. Ideally select a loop that isn't already a drumbeat, such as a sample of a single hit on a snare drum. Select more of an extended loop or longer sample.

2 Once you've found something you like, right click on the media and select Create Sampler Track – see screenshot below. This creates a sampler track for the media you've chosen. Put simply, it means that the chosen media is now assigned to a key on the keyboard, allowing you to 'play' the sample. The second screenshot below shows the Sampler Control window: the media has been assigned to A3 on the keyboard. If you click on that key (highlighted in blue), Cubase will play the sample for as long as you hold down the click. If you have a MIDI keyboard connected, then press on A3 and you'll hear the loop/sample that you selected. If, however, you press on C3, you will hear the media, but it will be lower in pitch. Pressing C4 will play it higher, and so on. Now that we have a Sampler Track created, we can start to create something really interesting using the original chosen media.
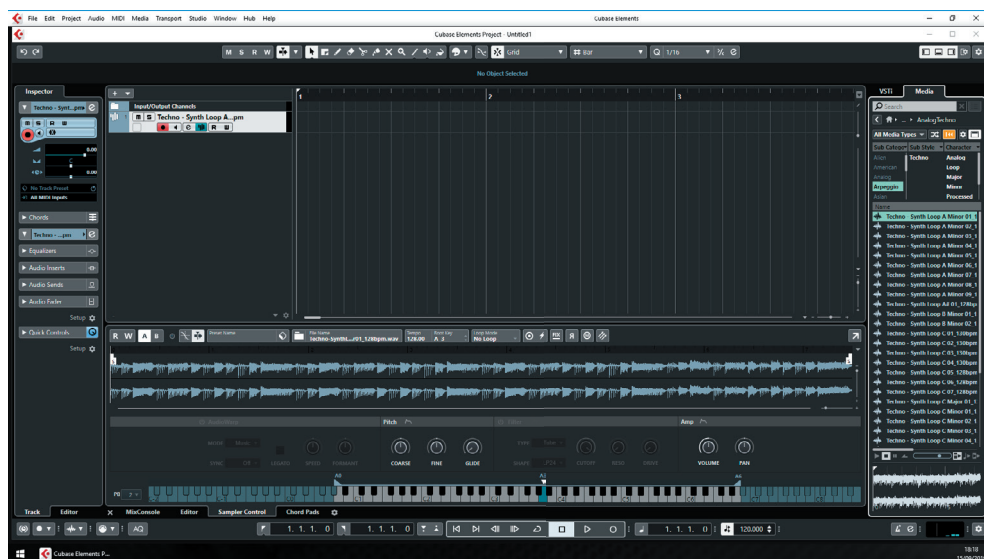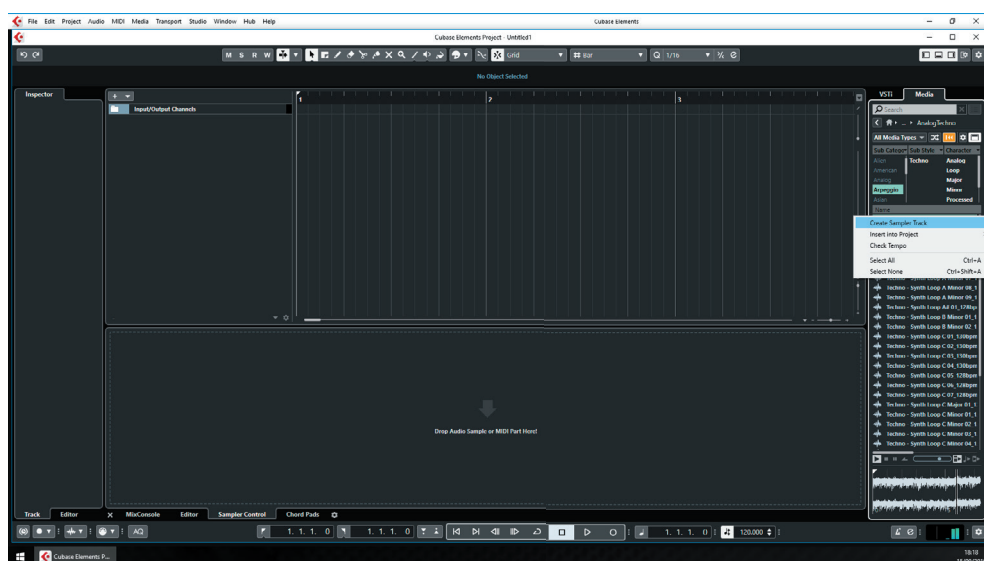
3 Once you've set up the Sampler Track and worked out how to play the sound, you'll quickly see how it can be used to create a rhythmic pattern using the sample. Students can quickly start to build their own beats: simply press record and then play/click to record the pattern.

4 Once students have made one Sampler Track, they can add more, and begin to create a fresh and exciting rhythmic pattern.

This process is really creative and exciting, and it gives students the power to design their own rhythmic patterns and sounds. As with a lot of music technology projects, students can develop from this basic starting point. Encourage them to build up their own drumkit loop using a Sampler Track. They should use higher keys on the keyboard to create higher-pitched drums and cymbals. A MIDI keyboard is helpful, but all of this can be carried out on screen using a mouse.

Next-level sampling

What we've covered so far is just the start of using sampling. Students will hopefully be excited by the thought of using samples to create music. If you want to build on that, try recording your own samples that can then be made into a Sampler Track. You could record students reading something out, or noises from around the school site. Students can then take these samples, assign them to a keyboard and record their own rhythms, sounds and patterns. Holding down multiple notes on a MIDI keyboard will create a chord of the sample, from which students might enjoy creating a chord pattern.

This way of composing is organic, innovative and hugely exciting. Every student will create something different, and during the process they will start to think more about sounds and how music is built up from scratch. You might like to link this approach to the experimental genre Musique concrète, which involves finding sounds in nature and combining them with recordings of musical instruments, voices and synthesizers. These sounds are then distorted, manipulated and modified to create music.

Chords, Chord Pads and chord progressions

Cubase has a very powerful tool that can help students not only to learn more about chords, but also to build chord progressions without needing to be able to play the chords on the piano. Starting with the theory of chords is a recommended approach here, and students will then be able to learn as they compose.

For this project, students are going to add a chord track to Cubase. This can be a stand-alone task, or it can be added to their previous projects. If students have already created their own drumbeat track, they might like to add some piano chords to it. They don't need to know how to play chords or what notes combine to make the chords. They can simply add the chords using the Chord Pads feature within Cubase.

Here are some approaches you might like to take, depending on what level your class has achieved:
▶ Students could use Cubase to create a 12-bar blues chord track. They can then use this track to improvise using the blues scale.
▶ Students could choose a song they love listening to, and research the chord progression used by the artist, songwriter or composer.
▶ If you use any set works in your teaching, students could take the chords from one of those set works and re-create the progression using Cubase.
▶ If you've studied the four-chord song (**www.youtube.com/watch?v=oOlDewpCfZQ**) with your class, ask them to put together that chord progression on Cubase.

There are several approaches to this project, but let's start with how to create a chord track in Cubase. From there, students will be able to build up a piece of music and move their drum pattern ideas forward. It's entirely possible for a student to compose a GCSE composition using Cubase, and hopefully this will inspire them to do just that.

Creating a chord track using Chord Pads

1 First, get students to select the instrument that they want to play the chords. This could be a piano, synth or guitar. Guiding them towards these instruments might help them to make a quick selection. These sounds can all be found in the Media panel under the VST menu. The virtual instrument we'll be using for this example is Halion Sonic SE3, which contains some fantastic sounds. The screenshot below shows this virtual instrument, and you'll see that there are a number of different sounds to choose from.

2 Once an instrument has been chosen, it will appear on the left-hand side of the project window. You're then ready to start adding chords. In order to do so, launch the Chord Pads window, which you can see in the screenshot below. Cubase has created a series of chords that will all work well together. These chords can be played by clicking with the mouse, or using a MIDI keyboard. If they click on C, it will play C. They don't need to know what notes to hold down or even what notes are in the chord, thereby instantly taking away barriers and getting students making music.
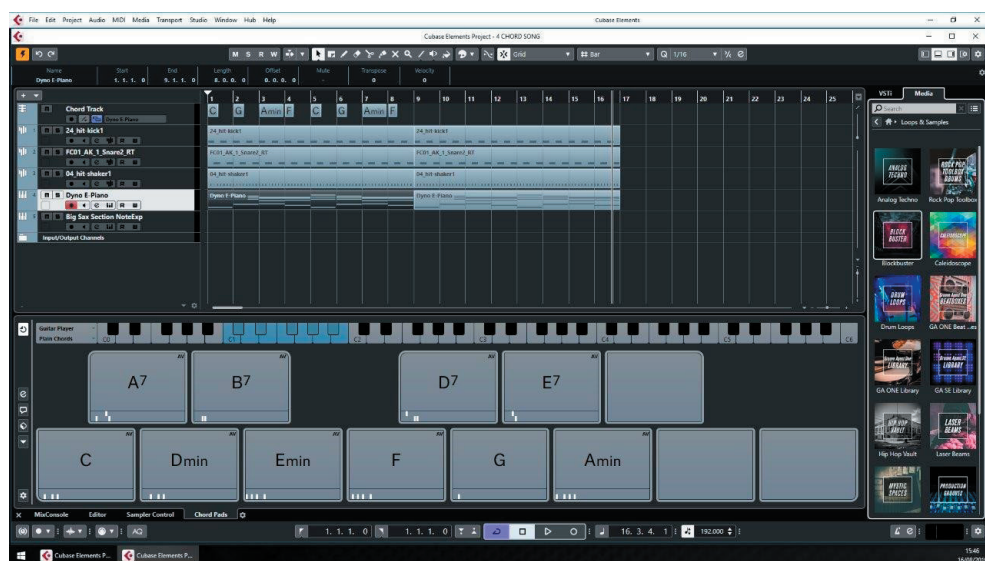
3 As you can also see in the screenshot, you can create a Chord Track that shows the exact chord progression that's been created. You can link this Chord Track to different instruments should you change your mind about your chosen instrument.

4 Students can now press record and start to build their chord progression. They can either click and hold on a chord or click a rhythmic pattern to add more variety. A MIDI keyboard will provide greater flexibility, but it's not essential for this process to take place.

5 Once students have a chord pattern recorded, they can start to think about what other layers they wish to add. On the screenshot below you can see layers have been added to the Dyno E Piano chords that combine to create a standard rock drumbeat. Bringing together chords and drums is really exciting, forming the beginning of a composition for students.


There are other tools within Cubase that help to build students' understanding of chords. The screenshot above shows the Chord Assistant window that highlights relationships between chords. This is probably of most help to advanced students who want to create more interesting and advanced chord progressions.

When you first open the Chord Pad window, it comes with the standard set of chords shown above. However, Cubase does come with a number of other presets that students can explore. These presets will introduce them to more exotic chords that include extensions and dissonances. It's really easy for students to then create exciting progressions with chords that they might not usually interact with.

By clicking on the third icon down (the one under the speech bubble) you can access the Chord Pad presets. This will launch a list of presets, and students can explore them and load them into the Chord Pads. The second of the two screenshots below shows this list, and you can also see that some pads have been loaded that contains chords with an added 6th.
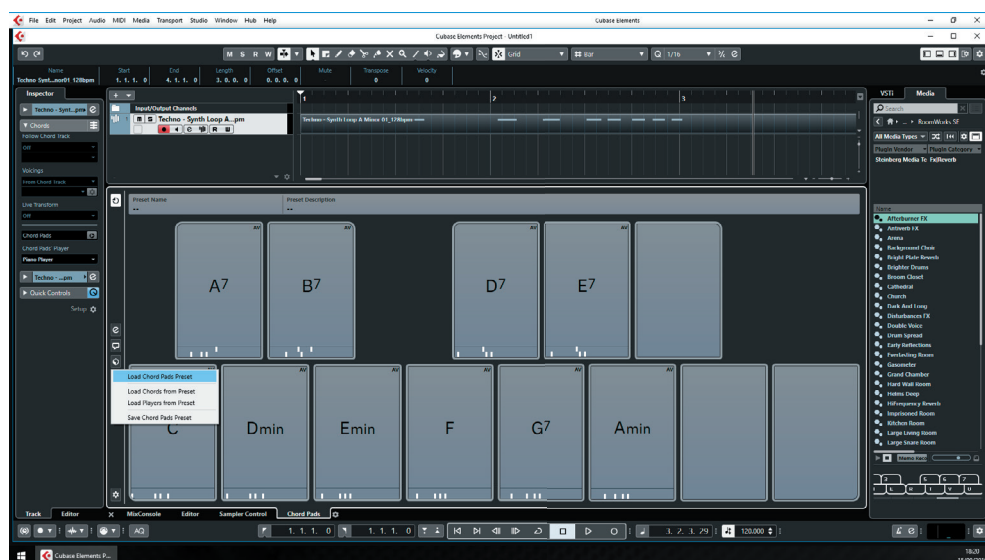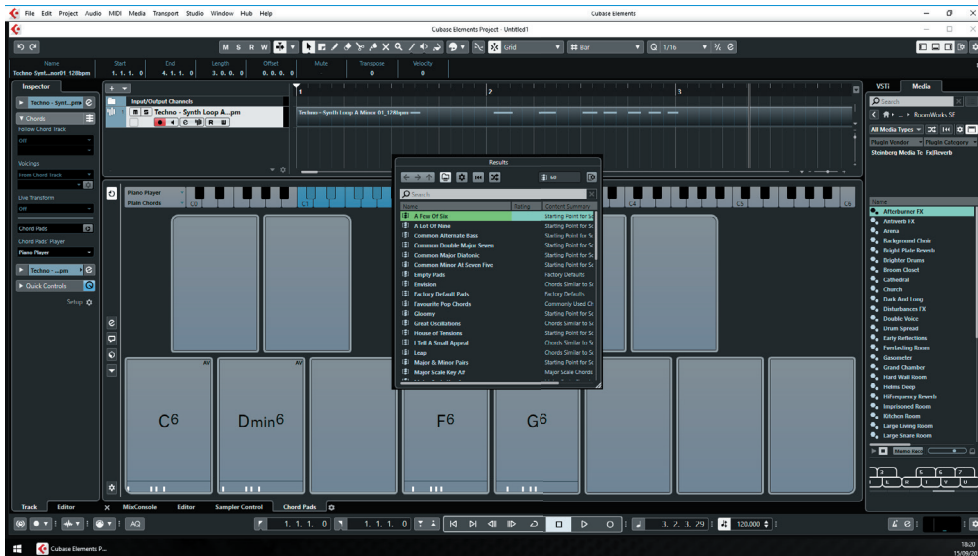
Once students have played around with chords using the Chord Pads, they can edit them, change the instrument they're played on, and add them to their drumbeats. You should start to see students wanting to explore songwriting and composition very quickly because Cubase is helping them to make it possible.

Editor window

The Editor window is another way for students to edit their work. When they play in chords using the Chord Pads, they are creating MIDI signals that can then be edited and manipulated. If they play in block chords, for example, they can easily chop them into small segments to create a chord pattern that emphasises the beat.

The Editor window can be seen in the screenshot below, and you can see the MIDI signals for each chord in a progression. Within this window, you can use the Scissors tool to chop up the red lines, making them shorter. Alternatively, you might choose to extend a chord by dragging a red line using the Arrow tool.
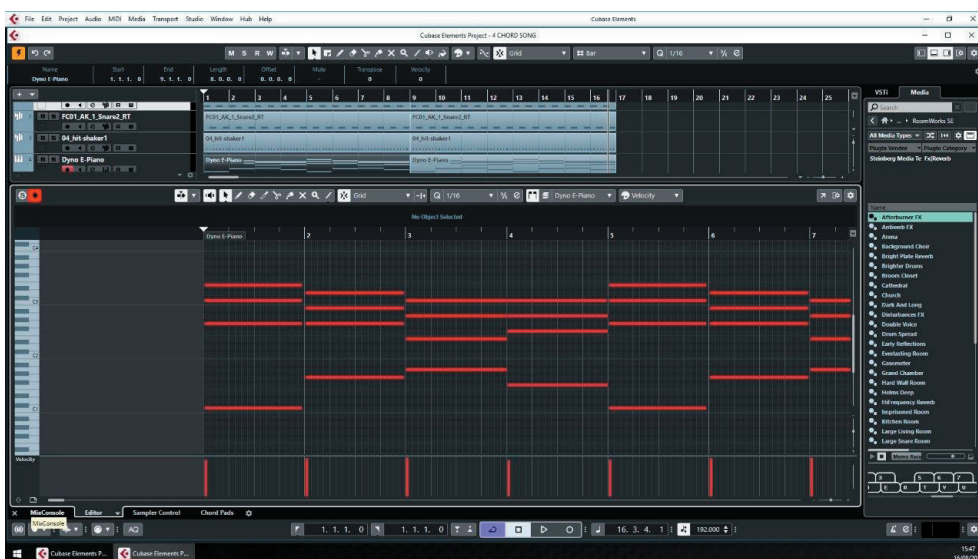
Mix Console

The Mix Console window is where students can change the volumes of each individual track within their project. It's a fairly straightforward window, and most students will be familiar with faders and volumes. But it also forms the start of the whole process of mixing a track and ensuring that the chosen levels are right for the track.
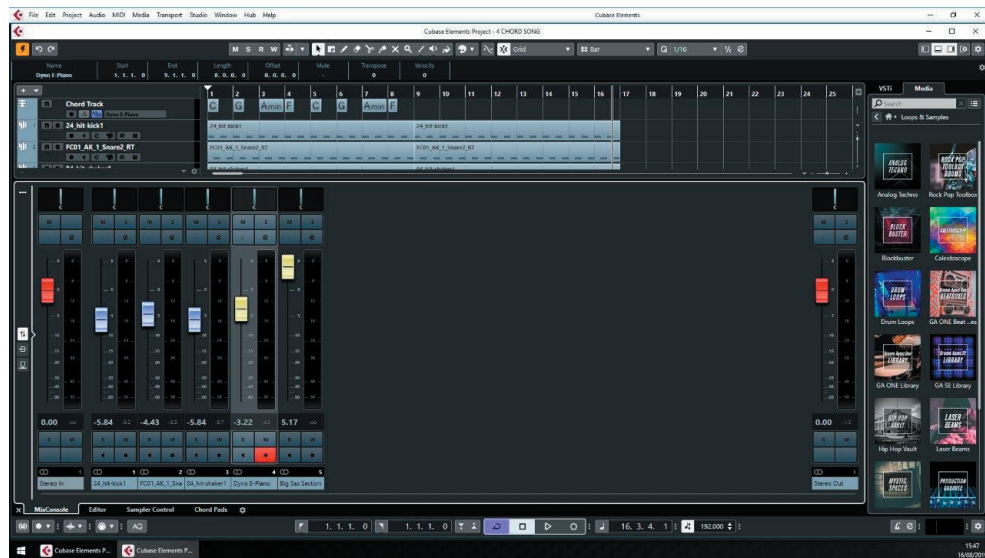
Cubase scheme of work

This two-part resource is intended as an introduction to Cubase. To finish and bring everything together, here is the outline of a potential scheme of work that you might like to try using Cubase. I've broken things down into seven stages, and in all it might fill half a term of music lessons for a Key Stage 3 class.

▶ Lesson 1: Using loops to create music.
▶ Lesson 2: Arranging loops into ternary form or rondo form.
▶ Lesson 3: How to create a drumbeat using Groove Agent Patterns.
▶ Lesson 4: How to create a drumbeat using Drum Editor.
▶ Lesson 5: How to create a drumbeat using a Sampler Track.
▶ Lesson 6: How to record a chord pattern using Chord Pads.
▶ Lesson 7: How to create a pop song backing track using Chord Pads and Groove Agent.

Lesson 7 should bring together the creation of a track using Groove Agent and a chord progression using an instrument from Halion Sonic SE. If you then want to extend this scheme of work, you could take the approach of writing a pop song or creating a 12-bar blues track.

Students will very quickly be able to create a pop backing track and then start to add melody and lyrics. This is where a MIDI keyboard can come in handy, as students can improvise melodies over the top of their chord progression and drum track. To play in a melody, they simply add another instrument from Halion Sonic SE. Once they've tried out some ideas, they can click on record and add a melody to their track. If a MIDI keyboard isn't available, they can put in a melody using the mouse, but this is more time-consuming.

It's also possible to link this work to a piece of score-writing software such as Dorico or Sibelius. Anything you create in these applications can be imported into Cubase as a MIDI track. Once students start to combine pieces of software, they really unlock the potential of music technology.

Project briefs

Here are three project briefs suitable for students who have been through these tasks and learnt the basics of Cubase. The third project will require more equipment and planning, but it might be just what your students need to get them excited about the possibilities of music making.

1 Create a pop song backing track that includes a Drum Track and a chord progression of your choosing. Ensure that you have a clear verse/chorus structure and that you use different drum patterns to emphasis each section.
2 The school jazz band wants to develop its improvisation skills. Create a 12-bar blues backing track that can be given to band members to help them develop their improvisation skills. Include drums, bass and piano, and stick to a standard 12-bar blues pattern.
3 The English department is exploring war poetry and wants to help bring it to life. Record yourself or a classmate reading a war poem, and then import this recording into Cubase. Create a Sampler Track of this recording and build up a piece of music that uses the poem as its basis.

Recording directly into Cubase is possible, and as mentioned in part one, it's best achieved using the Steinberg UR22 MKII Production Pack. But you can use anything to make a recording and then import the audio into Cubase.

Conclusion

This resource has given you a chance to explore how you can create beats using sampling and also how you can add a chord pattern to this beat. Once this has been created, students can start to look at melodic ideas and begin to create some really interesting music.

At this point you might feel that you have done enough with Key Stage 3, but I urge you to continue with the Cubase journey. This might mean buying some more MIDI keyboards so that students can play in their ideas and start to work with a piano keyboard. You might also like to import some video into Cubase so that students can put music to film. Whatever you do, don't stop there. Music technology is essential for our students, and when used well it can really enhance their experience of school music. **MT**