

Exploring riffs

KS3

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What is a riff, anyway?

This may seem like a silly question. However, with a topic so broad, it's essential to define parameters before we can start planning a project for students. Do we mean *any* repeating pattern in a piece of music? Should we include Baroque ground bass? What about minimalism? Indian tala? Cuban guajeo? Is melodic/rhythmic the most logical way of categorising riffs? What about the ones that are essentially chordal, like the one in 'Smells Like Teen Spirit'? Should we distinguish between riffs that are accompaniment figures and those that are the 'main event' of a section of a piece, such as the one in 'Wake Me Up'? What about pieces where a riff pattern changes to fit the chords, as in 'Canteloupe Island'?

Clearly, we're going to need to narrow this down, and not even attempt to 'do' riffs in an all-encompassing way. We will need to establish exactly what we want our students to learn from investigating riffs.

Learning objectives

It's always important not to confuse learning objectives with what students will be *doing*.

Essentially, this project is about developing an understanding of the value of repeating patterns in music. Repetition works for us psychologically as it gives our brains a clear structure to latch on to. However, there's always the danger of this becoming dull, so nearly all music that uses riffs does other things that create variety. Often, this is to do with adding or removing layers from the overall texture, and this in itself becomes a structural device.

Students will need to know what a riff is, and the different ways in which repeating patterns can be created. They will need to listen to and perform some riffs from a range of music in order to experience the ways that riffs are used in some different styles. It would then be beneficial to consolidate this knowledge with some creative work.

Separating music making from music thinking can be very helpful in keeping a focus on the learning rather than the activity. For a project that investigates riffs, this might look something like this:

Music making	Music thinking
Listening to and performing a range of musical examples featuring riffs.	Understanding the concept of riff; distinguishing between melodic, rhythmic, and chordal riffs; identifying where in the texture and structure the riff is, and its purpose.
Playing some riffs by ear.	Practising aural and instrumental skills.
Exploring texture by combining loops in BandLab or another DAW.	Practising identifying melodies, basslines, chords, rhythms and combining them in an effective way.
Composing a catchy riff from a chord sequence.	Considering key/mode, use of chord notes and non-chord notes, syncopation, motifs and symmetry.

When it comes to the creative parts of this project, you could choose to do either the DAW project or the composition project, or both.

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Listening to and performing a range of musical examples featuring riffs

Here are some ideas for riffs that you could explore in the early phase of the project. For each one, be sure to discuss with students whether it's melodic, rhythmic or chordal, and identify whether it's used throughout the piece, whether it changes pitch, and whether it's an accompaniment or the main point of interest.

- ▶ **Seven Nation Army:** this melodic riff will be familiar to students and is easy to play on guitar or bass guitar, or even the ukulele or keyboard. It is used as an accompaniment to the vocal, although it's easily the most memorable and distinctive part of the song. There are some variations to the main version of the riff – ask students to spot where these are. The song is in E minor and the riff starts on E. It is easy to work out by ear, but there are many YouTube tutorials and even a Wikihow (www.wikihow.com/Play-Seven-Nation-Army-on-Guitar) that gives instructions on how to play it.
- ▶ **Smoke on the Water:** a classic blues-rock riff that students are likely to recognise even if they don't know what it's called. This is a more chordal riff as two notes a 4th apart are played at a time, which fits very neatly with guitar strings (it could also be played on the E and A strings of a ukulele, although the effect will not quite be the same). There are many YouTube tutorials. The riff is used in a similar way to the one in 'Seven Nation Army' – as an intro figure that turns into an accompaniment. It is in G Dorian with a bluesy flat 5th embellishment on the sixth chord – even if you choose not to get into an in-depth investigation of modality at this point, you can identify which note it is that sounds 'blue', and work out that it is a flattened 5th degree.
- ▶ **We Will Rock You:** possibly the most straightforward rhythmic riff in existence. Great for getting students singing with gusto.
- ▶ **Smells Like Teen Spirit:** a great example of a chordal riff. This is in F minor and uses chords i, iv, III, and VI. Notice the avoidance of chord V – it is noticeable how most pop/rock riffs do, and you can compare this to classical ones later. It will be a whole lot easier to play – especially on guitars and ukuleles – if you transpose it down a semitone so that the chords are Em, Am, G and C. It is easy to change the key of the original audio using free Audacity software (www.audacityteam.org) if you want to play along. Another thing to notice is the way that the riff thins down to a bass outline during the verses of the song, and then comes back in full force in the chorus.
- ▶ **Beat It:** at first this sounds complicated, but it's a good one for showing how riffs can be created from chord notes – in this case, Em and D chords. With this information as a starting point, students should be able to work out the riff by ear. Notice the way that the riff dominates the introduction, disappears for the verse, and then comes back as a countermelody to the vocal line in the chorus.
- ▶ **Wake Me Up:** a rather more modern song with a striking melodic riff that comes to the fore at 3:14 as the main melody of the instrumental section. This is an interesting example of a riff that is not an accompaniment figure. The song is in B minor and the riff starts on B. Ask students to sing it first and then work it out by ear. Notice the way that Avicii manipulates the texture in this section, with the riff being completely unaccompanied at 3:27 before the 'drop' when everything comes back in.
- ▶ **Sweet Home Alabama:** this is a good example of a riff based around a repeating chord sequence, but is more than just chords. Students should be able to work out that the three chords involved are D, C and G. It could be fun to spot the few occasions in the song where this progression is interrupted. It could also be interesting to think about the key of this song: which of the three chords feels like 'home'? There may well be argument about whether it is D or G. In fact, the song is in D Mixolydian, which is one of the things that gives it its bouncy vibe. You could compare it to 'Back In Black', which is also in the Mixolydian mode, with a riff using a very similar chord pattern: E, D and A.
- ▶ **Cantaloupe Island:** this would be more complex to work out by ear, but is interesting as an example of an accompaniment riff that changes pitch to suit the movement of the melody. You could compare this to a very similar idea in 'Take Five', or the way that a walking bassline moves around in a 12-bar blues piece such as 'In The Mood' or 'Hound Dog'.

www.riffriff.com is an excellent compilation of 'how-to' videos, tabs and other information for playing guitar riffs from songs from the 1950s to the present.

- **Pachelbel's Canon:** an obvious but very useful example of a ground bass. In D major, the bassline and chords are straightforward to work out by ear:

Pachelbel Canon Bass Ostinato Chord Progression

I V VI III IV I IV V
D major A major B minor F# minor G major D major G major A major

Notice the way that the pattern is built around falling 4ths and rising 2nds, and that there is chord V on each side of chord I, which helps establish the key in a very 'classical' way. Also draw attention to the way that the texture builds up, first of all using chord notes the same length as the bass notes, and then adding in parts using shorter note-values, and more passing notes between the chord notes. Reinforce the concept that shorter note-values does not equal changing tempo by reminding students that the ground bass never changes speed. This video (www.youtube.com/watch?v=h78TxRnctog) gives a good visual breakdown of the texture of the piece and is useful even if students are not completely fluent in their notation-reading.

- **'Mars' from *The Planets* and Ravel's *Boléro*:** these are also worth exploring as examples of rhythmic ostinato in classical music. The *Boléro* snare rhythm is surprisingly challenging to reproduce aurally. Of course, there is the challenge of the time signature to identify in 'Mars', and plenty of great supporting material on the BBC Ten Pieces website (www.bbc.co.uk/programmes/articles/14ZjT5yjnKQRdKVsqRLzk1x/mars-from-the-planets-by-gustav-holst).

When asking students to work something out by ear, have the audio playing throughout, loud enough for the class to hear over their instruments. If the riff in question does not run throughout the piece, put the audio into a DAW such as Soundtrap, BandLab or GarageBand, and loop the relevant section. Get students to sing the riff first, and perhaps also get them to show the ups and downs of the pitch in the air with their hands. Give clues as necessary, such as starting pitch, number of pitches involved and so on. Encourage collaborative work. It's always likely that one or two students (it may be a surprise as to which ones) will 'get it' straight away, in which case be ready with supplementary challenges such as working out chords, bassline and so on.

Explore riffs and texture using a DAW

The great thing about using a DAW to investigate texture is that it makes the music so visual, and it's relatively straightforward (although not without challenges) to create something that sounds really good. From the teacher's point of view, a project like this is extremely adaptable and is likely to be very engaging for students.

There are many DAWs to choose from, including some that are cloud-based and free to use, such as BandLab (see *Music Teacher*, June 2021 for a resource devoted to BandLab). The learning experience for the student can be rich, and involves aural skills, musical thinking and creativity. However, do not underestimate the importance of communicating instructions clearly to students: the almost limitless possibilities within a DAW, and the tendency of some students to click wildly and without thought can sometimes result in outcomes that are less than good. Point out to students that while the DAW makes it possible to create something that sounds great relatively quickly and easily, it only does what its user tells it to, and the music is only ever going to be as good as the care put into producing it.

There are many ways to go about using a DAW to explore riffs and texture. Along the way you will be consolidating what students already know about the layers found in most music, including how melodies, countermelodies, chords, basslines and rhythmic parts interact. You will be developing their thinking about musical structure, and the part that texture plays in creating effective moments of build-up and release.

A good way to start is by looking at an existing piece, using a DAW to examine individual tracks, and see how everything fits together. If you can get hold of a whole set of audio stems for a song that you like, then you could use that, but otherwise there is some very useful material on Backtracks For All (www.backtracks4all.com). I particularly like Stevie Wonder's 'Superstition' (<http://backtracks4all.com/backingtracks/stevie-wonder/superstition-2>), as it's a fantastic example of a multi-layered riff that is built on just one chord, but is never boring because of the incredible sense of groove and the way that the texture evolves through the intro and verse.

You could start by playing the original Stevie Wonder version of 'Superstition', and see what layers of sound students can identify. They may incorrectly identify the main melodic instrument as an electric guitar, when in actual fact it is a Hohner clavinet – if you want a five-minute video to explain what a clavinet is, the irrepressible Doctor Mix on YouTube (www.youtube.com/watch?v=qpYNY8tcETI) is always an excellent bet.

The chord that the whole of the intro and verse of 'Superstition' is based on is this one:



It's a funky chord in itself, and you could certainly explain a bit about the way that added notes can add more flavour to a chord. The riffs are mostly built from the notes of an E flat minor pentatonic scale:



The great thing about pentatonic scales in riff-driven music is that the lack of semitones makes it impossible to create music that has a lot of dissonance – in other words, it's a shortcut to a riff-based piece that sounds good.

Once you've explored the piece in a general way, you can explore the individual layers of sound by using the version of 'Superstition' on Backtracks For All (<http://backtracks4all.com/backingtracks/stevie-wonder/superstition-2>). By muting and soloing individual tracks, you can pinpoint the impact that each one has on the music, noticing how they do not all come in at the same time, but in a careful order designed to keep up the interest and excitement in the music.

Once 'Superstition' has been deconstructed, it can be useful to consider another song. This video (www.youtube.com/watch?v=ZpMNJbt3QDE) provides a superb insight into the creation of Ed Sheeran's 'Shape of You', with just the right level of detail about the way that texture is used to keep the song interesting even though the riff remains the same throughout. The graphics are brilliant in helping to focus the ears on the relevant parts of the music. The riff is easily worked out by ear, with three parts for the quicker students to find. It sounds great on classroom xylophones and boomwhackers!

By now, students should have a pretty good idea of what they are aiming to achieve when they create a piece of their own. Here are some suggested success criteria:

- ▶ Select/create riffs that fit together rhythmically and harmonically.
- ▶ Use an effective, balanced combination of bass, melodic and rhythmic lines.
- ▶ Create an effective structure through build-up and breakdown of texture.

There are many ways that you can structure a project. If you use BandLab, ask students to choose one of the 'packs' of loops, as this will give selections that match in terms of tempo and key, as well as style. Because there are so many, you may wish to explore these yourself in advance, and pick two or three to choose from.

Explain that each loop within a pack has a number that denotes beats per minute – it's imperative that all chosen loops are at the same tempo – and the melodic ones also show a key: double check that all chosen loops are in the same key. They are all clearly labelled as to whether they are bass, keys, drums, synth, percussion and so on. Remind students about the different layers that they have seen and heard in 'Superstition' and 'Shape of You' – they need to make sure that they don't clog up the texture with too many of the same kind of riff. To start with, they could choose one of each, and plan the order in which these should enter.

All this sounds like it should take five minutes, but in my experience most students take quite a while to get on top of all these details. Depending on the time available, you could then develop the structure with more sections, thinking about building up and thinning out the texture, and introducing new material at appropriate points.

You could also use loops taken from existing songs to explore the same ideas within a remix project. Musical Futures (www.musicalfuturesonline.org) is a subscription service with a whole host of great material, and which includes remix projects for songs by Ed Sheeran, Dua Lipa, Ariana Grande and Stormzy, with downloadable sample packs and full instructions.

An alternative would be to set up your own remix project from scratch – there is an excellent podcast here (<https://midnightmusic.com.au/2018/07/mtt61-remix-projects-for-year-7-10-students-with-david-bennett/>) that explains how.

Creating riffs from a chord sequence

This section of the project could form part of a wider journey towards a songwriting unit, which could perhaps be a ‘culmination project’ for the end of KS3. It could be done using classroom instruments, or using a DAW.

It can be tricky to show students how to create an effective chord sequence. One way of doing this is by using a tic-tac-toe grid. Here is one in D Dorian – using a mode helps to give a song a good feeling of style, and Dorian seems to be a mode that lots of people find appealing:

Dm	Em	F
G	Am	Dm
C	Dm	G

D Dorian also has the advantage of using only the white notes of the keyboard, and all of the chords are relatively easy to play on both guitar and ukulele. Students use the grid by trying out the chords on any of the lines – up, down, left, right or diagonal – and choosing which pattern they like best. Of course, they are at liberty to use the chords in whatever order they like, but using a grid takes away the ‘blank page syndrome’ of having to come up with something from scratch.

If you'd rather do this in a different key, you will find some more tic-tac-toe chord grids on the Little Kids Rock website here (<https://mkojamzonelittlgp1k9.kinstacdn.com/wp-content/uploads/2016/09/LP-Songwriting-ChordTicTacToe-Worksheet.pdf>).

Once they've decided on three chords that they like together, the next thing is to decide how to make it into a four-bar or a two-bar pattern. To do this, one of the chords could go on for twice as long as the others, or a fourth chord could be added. Here are some steps to work through in order to turn the chord progression into a riff:

- ▶ Think about when the chords change: it may be effective for them not to last equal amounts of time. Having the second and fourth chords come in slightly early can be extremely effective:
- ▶ Make a pattern using the chord notes on Chord 1. Make sure there is some syncopation. Use the same pattern for the notes of Chord 3 to create some symmetry.
- ▶ Consider whether it works to use the same pattern for Chord 2, or whether this feels too much.



Perhaps the same rhythm could be used, but going in the opposite direction.

- ▶ Put in some non-chord notes: passing notes are the obvious choice.
- ▶ By now, it is hopefully apparent what Chord 4 might need – which could be something that echoes the pattern of Chord 1 or Chord 2, or something completely different.

Once a successful riff has been composed, you could either put it to one side to revisit as part of a songwriting project, or try out some of the textural and structural ideas discovered earlier to create a purely riff-based piece. This might involve adding a bass riff (starting perhaps with simple root notes, or experimenting with inversions), percussion parts, and other counter-riffs using the notes of the mode. Think about building up and stripping away layers for maximum effect.