Using knowledge organisers

Jane Werry

What is a knowledge organiser, and why should I use one?

Knowledge organisers are something that a lot of teachers are talking about at the moment, and some schools insist that all departments use them. Like all teaching strategies *du jour*, however, it's possible to comply with your school's requirements in a way that becomes just another box-ticking exercise. But with a bit of planning you can make sure that your knowledge organisers are a positive thing for you and your students, and that they have real benefits.

So, what is a knowledge organiser? Essentially, it's a (maximum) one-page summary of all the factual knowledge that students need for a particular topic, laid out in such a way that students can – with a little instruction – use it for self-quizzing.

The benefits of using knowledge organisers include:

▶ Providing focus for your planning – since you need to determine in advance the required knowledge for a topic, it forces you to think about the content of the knowledge organiser and how this links to the purpose of the scheme of work.

▶ Providing clarity for the other teachers in your department, and supporting consistency between members of staff.

▶ Giving students the 'big picture' of each topic, and heading off the question: 'What are we going to learn?'

▶ Scaffolding learning for students through self-quizzing homework tasks, and giving you as a teacher an easy way to create low-stakes tests.

▶ Strengthening the idea that music is an academic subject that includes required learning. This may be something that appeals to you if you find that KS3 students in particular think of music as play rather than work.

Pitfalls of using knowledge organisers might include:

▶ Putting the wrong things on the knowledge organiser, or laying it out in a way that's not the most useful for students.

▶ Going to great lengths to create knowledge organisers (perhaps because a school directive has told you that you must), and then finding that they are not actually used. This might be a particular problem in a paperless KS3 system.

This resource will give you guidance on knowledge organiser content and layout, and tips on how to use them, including training your students on how to use them for independent study. You will see some examples of knowledge organisers for music at all key stages.

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Knowledge about/of music

At a time when the 'knowledge-based curriculum' is a buzz phrase, a lot has been written about the different types of knowledge in music, mainly the distinction between knowledge *about* music and knowledge *of* music.

Knowledge *of* music – understanding it from the inside, from practical experience of music making – is rightly prized more highly: it is the difference, crudely put, between knowing that a minim has two beats and that the notes on the lines are EGBDF, and being able to play a melody with expression and meaning.

However, knowledge *about* music – provided that things are effectively prioritised, and some threshold concepts are considered – is a prerequisite for knowledge *of* music. Of course, it is possible to play a melody with musical meaning without understanding notation, but understanding some basic musical concepts such as pulse, pitch, octave equivalence, and the difference between a melody and chords is essential.

Knowing how to talk about what we're doing in music is also essential to a practical lesson. So it could be argued that having a knowledge organiser to solidify the knowledge *about* music that is required makes it easier for us to focus on practical work in our lessons, using our precious curriculum time to focus on knowledge *of* music.

Knowledge organiser layout and content

A knowledge organiser can have any combination of text and diagrams – whatever is most relevant to the knowledge being covered. It needs to include key concepts and key terminology. In music, it may also include knowledge of *how* to do certain things, for example how to read a chord diagram or play a minor triad.

Particularly important things should be emboldened. If there are any methods for remembering things (for example, Every Good Boy Deserves Football), then these can be included. If items are numbered, it makes it easier for self-quizzing and for teacher-created low-stakes testing.

> ### Threshold concepts
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> It is worth considering the threshold concepts required for musical learning. A threshold concept is a piece of knowledge that's crucial for further understanding, without which further understanding will not happen. A very basic one for music is the idea of pitch (in Western music) being organised around the notes A-G (with sharps and flats), with one A feeling equivalent to all the other As, even though they are different pitches. This concept is inextricably linked to the idea of 'up and down' regarding pitch, which needs to be linked to what 'up and down' actually sound like, and which way is 'up' or 'down' on whichever instrument you happen to be playing.

The first knowledge organiser for Year 7 might make these basic ideas explicit. Here is an example of what it could look like:

This knowledge organiser, together with a collection covering KS3, 4 and 5, can be found in editable format here: **https://werryblog.com/knowledge-organisers/**

You might argue that some or all of these things should have been learnt at primary school, and indeed that may be the case. However, unless you are 100% sure that all of your students are completely confident in this knowledge, it's worth making it explicit at this stage. Unless students have this knowledge, they will be forever confused about everything that follows, and will always be stuck in that 'I don't *get* music' mindset.

Your 'basics' knowledge organiser might look different from mine. I made the decision that I wanted all of my students to know how to construct major and minor triads on the keyboard right from the start of Year 7. Every school context is different, however, and you will need to make decisions based on your knowledge of your school and its students.

Some of the things on this knowledge organiser might be considered too obvious to state. Experience, however, tells me that it is absolutely necessary to make explicit some of the things that students get confused about, for example the difference between a chord and a melody, and the difference between a flat and a minor (chord).

A few hints for memorising strategies are included on this knowledge organiser, for example the chant 'C is to the left of the two black keys, C D E F G A B', and the tip for remembering which is sharp and which is flat using their second letters. Where these are available, be sure to include them on the knowledge organiser. They are important in helping your students to construct mental schema for the knowledge.

What program should I use to create knowledge organisers?

If a knowledge organiser is to comprise text, or mainly text, then Word may suffice. However, any knowledge organiser needing diagrams or pictures is likely to need something a bit more flexible. Desktop publishing programs such as Microsoft Publisher are great for this, but have the disadvantage that not everybody has them, which makes it difficult to do work from home, or share with other teachers in an editable form. PowerPoint is a useful alternative: it gives you great flexibility on layout and is accessible from any computer. You can easily set the slide size to A4 if you intend to print out your knowledge organisers, and they can be saved as PDF files for non-editable sharing.

How to use knowledge organisers

So, the initial work of planning what should go on the knowledge organiser and designing its layout has been done. What to do next? You will need to consider how the knowledge organiser will be shared with students, and what they – and you – will actually do with it. This will need particular planning in paperless KS3 systems.

If your school is embracing knowledge organisers as a whole-school strategy, it might be that knowledge organisers for all subjects are collected together in a booklet for each student, which makes distribution easy for you. In this scenario, it's likely that students will also be trained in how to use knowledge organisers for self-quizzing, and that this will be part of the school routine (see the blog post here **https://pragmaticreform.wordpress.com/2015/05/03/a-5-year-revision-plan/** for details of how this works at one school). If, however, you're going it alone and blazing a trail at your school, then you will need to devise your own systems and train students yourself.

In a paperless KS3 system, where students do not have books or folders, you are likely already to have a method for sharing files of all kinds with your classes – Google Classroom, Showbie, Microsoft OneNote, Microsoft Teams, and so forth. Even if you're using none of these, it's likely that you have an online homework system such as Show My Homework, Connect or SIMS.net. The main thing is there's a place you can put your knowledge organisers that all students can freely access. After that, you need to train students how to use them, and then they'll need to decide whether they need to print them out in order to do the homework tasks you set.

Now you've made the knowledge organiser available to students, the essential thing is to use it and refer to it frequently. Link everything in a lesson to it, zooming in on one particular area where relevant. Show it – or a detail of it – on the board as you explain things, and link it to every practical task that you do.

Training students how to use knowledge organisers effectively

The next thing to do is to put the ball in the students' court, and get *them* using the knowledge organiser for themselves. This will involve setting some homework tasks – and may well provide a useful source of easy-to-administer, worthwhile tasks for you, especially if you're required to set homework at regular intervals. Some schools have made 'prep' using knowledge organisers the entirety of their KS3 homework, with a schedule for different subjects on different days, and with students being required to show the written self-quizzing work that they've done at home.

Students will need training in how to use their knowledge organisers effectively for learning: if you just tell them to go away and learn what's on it, the chances are it will not be particularly effective. Unless it's a whole-school strategy that's being pushed through the tutor programme, you'll need to provide some quite specific training yourself. Fortunately, there are some useful YouTube videos that you can show to your students: this one **www.youtube.com/watch?v=UUiq45U57pY** is a very thorough guide.

You might decide to check on homework completion by asking to see students' self-quizzing work. However, with the sheer volume of classes that you're likely to have at KS3, and the limited lesson time you have for doing exciting practical work, you may decide that another form of evidence is easier to check.

How you can use knowledge organisers for low-stakes testing and quizzing

As an immediate form of evidence of self-quizzing for homework, you may direct students to an online multiple-choice quiz that you've set up using your school's preferred method, whether this is Google Classroom, Show My Homework or equivalent. However, it is most certainly not enough just to test the knowledge once – you need to get students to retrieve the information, and check their retention of it, frequently.

You can, of course, do this in the ultimate low-tech, no-prep kind of way, by taking two minutes out of a lesson to cold-call students on specific points on the knowledge organisers. This can be thrown in at any time. It's also a good thing to mix up new topics with old ones, and see the knowledge as cumulative: throw in some questions from previous topics alongside questions from the current topic.

Another way to quiz is to print out sections of the knowledge organiser with blanks for students to fill in. There's nothing at all wrong with that – particularly if you want (or are required to have) a quiet activity for students to do as they enter the classroom – but of course it involves bits of paper, which you may want to avoid on the grounds of printing expense, or simply because you prefer KS3 to be paperless.

If you want to introduce paperless quizzing into your lessons, there are of course a multitude of ways in which this can be done. All require a bit of preparation from the teacher to get set up, but the good thing is that once the questions are in place, they can be reused with other classes, and you are also left with some good data about students' answers that can inform your future planning and provide 'evidence' if that's something your school is keen on.

A very popular format for quizzing is Kahoot **https://kahoot.com**. A group Kahoot quiz involves you setting up the questions, displaying them on your screen, and students responding using their own devices. Unless you happen to have a class set of iPads, however, this can be fraught with pitfalls. If a student has lost their phone, or has run out of battery, or doesn't have one, the whole thing fails. It may be that your school is one of an increasing number that bans phone use on site anyway.

A really good low-tech alternative is to use Plickers **https://get.plickers.com**. You can find a video tutorial here **www.youtube.com/watch?v=bejiz2HzUz8**. You set up a free account via the Plickers website, and then spend some time creating your classes and sets of questions. This is the bit that takes some time, although preparation at this point reaps rewards later. You will need to print out sets of Plicker cards, which are A5 cards that have a simple QR-type code on them, looking like this:
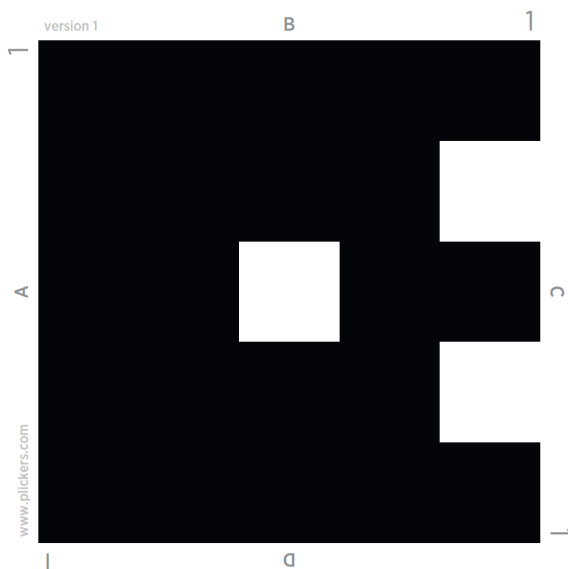
You'll notice that there is a number: this is specific to a student in the class. Each time you use the cards, you will need to ensure that each student is using the same card. You can use the same set of cards for all your classes. To make things easier you can write a list of the classes/students on the back of each card to aid with giving them out. Round the edges you will see A, B, C and D: these are the answers for multiple-choice questions. These are small enough for students not to be able to see other students' answers and copy them. You put the question on the screen, and they show their answers by holding up their cards with their chosen answer at the top.

This is the clever bit: you will need a phone or iPad with the Plickers app on it, which you use in camera mode to scan the room. On your device, you will instantly be able to see students' individual answers:

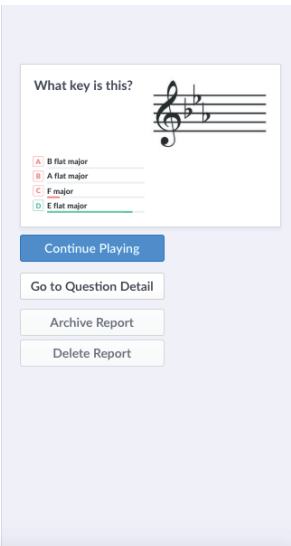However, on your main screen the results will be anonymised:

Alternatively, you can choose to hide the answer on the screen altogether. You will be able to revisit the answer data later (this is preserved within your account) so that you can use it to plan future lessons:

There's also a 'shuffle answers' option for when you revisit a question with the same class, so that the choices will not appear in the same order.

Doing a few Plickers questions a lesson – say, four or five – you will quickly build up a picture of each student's learning, and ensure that retrieval of material from the knowledge organiser is happening, without it taking too much time away from your practical activities.

Knowledge organisers at KS4 and KS5

Knowledge organisers for KS4 and KS5 courses are likely to be more wordy and have more content crammed in, simply because of the nature of the courses.

You may choose to give students all the knowledge organisers at once, or when you start each topic. Either way, they need to be carefully organised to include all of the factual information that students must know. After all, this is essential for them to be able to answer listening questions or write essays. Without the facts, the more complex things simply will not happen.

Here is an example knowledge organiser for OCR GCSE AoS4, film music:

Knowledge organiser AoS4: Film Music

Key ideas and concepts		Orchestral instruments	
1. Purpose	Music in a film is there to **set the scene**, **enhance the mood**, and **tell the audience things** that the visuals cannot, or manipulate their feelings. **Sound effects are not music!**	**1. Strings, bowed (highest to lowest)**	**Violin**, **viola**, **cello**, **double bass**. Can also be played **pizzicato**
		2. Strings, plucked (highest to lowest)	**Harp** (has very wide range), guitar, bass guitar
2. Specially composed music	Some music is **composed especially** for a film. Much of this is broadly classical in style.	**3. Woodwind (highest to lowest)**	**Piccolo**, **flute**, **clarinet**, **oboe**, **cor anglais**, **bass clarinet**, **bassoon**, **contrabassoon**
3. Borrowed music	Some music used in film soundtracks was composed for other (non-film) purposes, but is **adopted** for use in a film because it fits the film-maker's intentions.	**4. Brass (highest to lowest)**	**Trumpet**, **horn**, **trombone**, **tuba**
		5. Tuned percussion, metal	**Glockenspiel**, **celesta**, **vibraphone**, **tubular bells**
4. Theme songs	Sometimes a song, usually a pop song, is used as a **theme song** for a film. This helps with marketing and **publicity**.	**6. Tuned percussion, wooden**	**Xylophone**, **marimba**
		7. Tuned drums	**Timpani**
5. Video game music	Music for video games fulfils a very similar function to that of film music	**8. Untuned percussion, hit**	**Tam-tam (gong)**, **snare drum**, **bass drum**, **triangle**, **castanets**, **woodblock**
Key terms		**9. Untuned percussion, shaken**	**Maracas**, **tambourine**
1. Click track	A **click metronome** heard by musicians through headphones as they record.	Harmony and tonality	
2. Cues	The **parts of the film that require music**. This is agreed between the director and the composer.	**1. Atonal**	**Not in a key**. Often sounds dissonant.
3. Diegetic	**Music that is part of the action**: the characters in the film can hear it.	**2. Consonant**	**Not clashy**. Sounds 'nice'.
4. Leitmotif	A **short melody** that is **associated with a character** or idea in a film.	**3. Dissonant**	**Clashy**.
5. Mickey mousing	When the **music fits precisely** with a specific part of the action in a film.	**4. Major and minor**	The **key**: generally, major keys sound happy and minor keys sad.
6. Non-diegetic	**Music that is not part of the action**: the characters in the film **cannot hear it**. It is just for the audience.	**5. Pedal note**	A **held note** under or over the rest of the music.
7. Syncing, sync point	A precise moment where the timing of the music needs to fit with the action.	Dynamics, expression, articulation	
8. Underscore	Where **music is played at the same time** as action or dialogue.	**1. Accent**	A **note that is louder** than the ones surrounding it.
Pitch and melody		**2. Crescendo**	Getting **louder**.
1. Arpeggio, broken chord	Going up or down the **notes of a chord one at a time**. **Ascending or descending**.	**3. Diminuendo**	Getting **softer**.
2. Chromatic scale	Going up or down by **one semitone at a time**.	**4. Glissando**	A **very quick scale**, played as fast as possible.
3. Conjunct and disjunct	Moving up or down **by step** (conjunct) or **by leap** (disjunct).	**5. Harmonics**	A **soft note with a distinctive tone** played on a stringed instrument by stopping the string lightly.
4. Interval	The **distance from one note to the next**: 2nd, 3rd, 4th, 5th, octave, etc.		
5. Ostinato	A **repeating pattern**. Can also be a rhythm.	**6. Muted**	A **dampened sound on a brass or stringed instrument** made by using a mute.
6. Scalic	Moving up or down in a **scale pattern**.	**7. Legato**	Played **smoothly**.
7. Sequence	A small pattern repeated up or down in pitch.	**8. Pitch bend**	When the player **smoothly changes pitch**, literally 'bending' the note.
8. Octave	The interval of an **8th**.	**9. Pizzicato**	When a violin, viola, cello or double bass is **plucked** (not bowed).
Rhythm and metre		**10. Staccato**	Short, **detached** notes.
1. Cross rhythm	Where **conflicting rhythms are played together**, for example triplets against pairs of quavers.	Texture	
2. Even rhythm	Where the notes are of an **equal length**.	**1. Antiphonal**	**Alternating**.
3. Polyrhythm	**Many rhythms** played together.	**2. Call and response**	**Question and answer**.
4. Syncopation	**Off the beat**.	**3. Homophonic**	**Chords**, or melody and chords.
5. Uneven rhythm	**Dotted rhythm**. Alternating long and short notes. Creates a skipping effect.	**5. Monophonic**	A **single melody**, no harmony.
		6. Polyphonic	**Many independent** lines.

Key concepts are given first, before specific terminology grouped according to musical dimension. This is useful, as a key skill required for exam questions is knowing what terminology goes with each dimension. For example if the question asks about texture, writing about syncopation will not get marks, even if the statement is true.

Again, key terms are emboldened, items are numbered, and terminology in each section is listed alphabetically, which will help at least some students. All of this makes the knowledge organiser easier for students to use for self-quizzing, but also easier for you to use to create simple low-stakes tests. All you need to do is take a section or two of the knowledge organiser (not all of it, especially not to begin with) and take out some bits for students to fill in – either the definitions, or the terms, or perhaps even the section headings or specific words. There are endless permutations of this, and you can use them as lesson starters or finishers, mixing up topics as you go along to provide your students with frequent and repeated retrieval of their essential knowledge.

You may want to encourage your KS4/5 students to move beyond the look-cover-write-correct process, and use their knowledge organisers independently in a variety of ways. These may include ranking sections of the organiser in terms of confidence, creating flashcards, creating mindmaps, writing sets of questions, and so on. A broad set of suggestions, in student-friendly language, can be found here **www.toothillschool.co.uk/data/uploads/web/files/Knowledge_Organisers/Pupil_ Friendly_How_to_Use_my_KO.pdf MT**