Learning outcomes

Students should be able to:

- create a short piece of music combining live instrumentation and sampling via mobile devices - either improvised or a more constructed composition

Curriculum checklist

The following aspects of the KS3 and 3rd Level music curriculum (for England, Scotland, Wales and N. Ireland) are encountered in this project:

- Listen and evaluate/appraise
- Performing/playing/rehearsing and reviewing
- Composing/improvising
- Singing
- Technology
- How music is created (i.e. pitch, tempo, timbre etc.)
- Notation (staff or other relevant notations)
- Identifying musical devices and concepts
- Aural skills (imitating, understanding pitch)

Required kit/space

Pupils will require:

- a mobile or tablet device (either a student’s own personal device or a school device)
- an app on their device that allows them to sample and loop sounds
- an app that allows them to scratch sounds

Time needed

The project may be completed in a one hour lesson or extended to two or more lessons.
BRING YOUR OWN DEVICE COMPOSITION

Introduction

The soloist in the Concerto for Orchestra and Turntables by Gabriel Prokofiev uses samples of the orchestra and manipulates them to create altered sounds as part of the sonic landscape. With the development of mobile and tablet technology the ability to manipulate samples live has become significantly easier and more affordable. Begin the BYOD lesson with a group activity based around using sound in different ways:

Warm up

Gabriel Prokofiev’s concerto uses a bottle as a musical instrument. Play the .mp3 recording (included in this BYOD zip) or the clip from the Ten Pieces film of the concerto movement (available at bbc.co.uk/tenpieces) to students and ask them to listen out for the bottle and any other sounds that they can identify.

Students might enjoy watching World Champion DJ Mr Switch’s turntable tutorial film.

Ask students to identify an object in the learning space that will make a sound that isn’t its main purpose. Ideally this should be something that’s not designed to be musical such as a pencil on a radiator or a curtain running on its tracks. If they choose a musical instrument it should be played in way that isn’t intended (i.e. strumming the strings on a piano or blowing into the sound-hole of a guitar). Once each student has a sound, invite them to create a rhythmic pattern in conjunction with another sound. Once the pairs of sounds/rhythms are decided lead the group in a short group performance and conduct them by bringing their patterns in and out.

Group work

Make sure students have an appropriate app installed on their devices and have it loaded. Separate the class into small groups and identify instrumentalists* within each group. Encourage students to experiment with some musical ideas, i.e. create a melody on their instruments and or capture some alternative percussive classroom sounds that can be manipulated or looped using whichever appropriate app the student has access to.

Students don’t need to be tied down to a particular starting point and if they want to do an entirely original improvisation or composition, they should be encouraged to. However, as a way in to the task students could use samples from the original Concerto (included in the BYOD zip), either by importing them onto their devices, or recording them on the fly from another device.

Once melodic and/or percussive samples have been captured, ask students to perform their compositions featuring their live instruments and recordings on the tablet/mobile devices. This can either be scored or done from memory. The outcome should be musical and doesn’t need to include a score.

*If your class doesn’t contain enough (or any) instrumentalists, this activity can be done with classroom percussion, singing or entirely using found sounds.

Create a cadenza

During the piece, Mr Switch is given the opportunity to perform a cadenza during the orchestral movement:

Ask pupils to create a cadenza using only manipulated samples on their devices. This could incorporate any sounds they like and be manipulated as far from the original as they want. Remind students: cadenzas are an opportunity for the soloist to show off – so make it impressive!
BRING YOUR OWN DEVICE COMPOSITION

Create a ternary form piece

Ask students to combine and rehearse their original sample composition with their cadenza to create a binary form composition i.e:

sampled/live instrumental section – cadenza – sampled/live instrumental section

Performance

The session can end with completed performances of the live instrumentation/sampled pieces.

Key vocabulary

| Turntable | A device for playing vinyl records often used by DJs for mixing between songs and as a performance tool. |
| Sampling  | The process of capturing pieces of audio and playing them back in a different context. Can often feature manipulation of the original sound to make it distinct from the source. |
| Scratching| When a DJ moves the record on a turntable back and forth it creates a scratching sound that can be varied in pitch and rhythm depending on the original sounds being used. |
| Cadenza   | An extended improvised section of music from a principle performer to demonstrate virtuosity often found in a concerto. |

Apps

There are many apps available for iOS and Android devices. Here are some suggestions for free apps:

**iOS devices - free**
- edjing 5 is a basic DJ app for scratching
- DJ Sampler for FREE is a basic sampler with sounds
- Sound Sampler is a basic recorder that will play back multiple short sounds

**Android devices - free**
- edjing is a basic DJ app for scratching
- Smpler is a basic sampler for triggering sounds
- Virtual Recorder is a recorder for capturing sound

And suggested paid for apps:

**iOS devices – paid for**
- Tap DJ allows you to sample sounds and then scratch them live
- MadPad is a basic video based sampler that is designed for live playback
- SoundYeah is a simple sampler that allows for looping and other effects
- Samplr is a pro level sampler that offers a lot more control, but is expensive

**Android devices – paid for**
- Cross DJ allows you to sample sounds and then scratch them live
- CamJam is a basic video based sampler that is designed for live playback
- SPC Music Sketchpad loads and plays back samples, but requires an SD card
BRING YOUR OWN DEVICE COMPOSITION

**Expanding the BYOD approach**

Get students to develop some scratch skills using appropriate apps. Mr Switch demonstrates the scratching of samples throughout the piece and students could try to emulate some of these performance techniques reliably, using turntables on the devices, in their own performance. Use Mr Switch’s scratching masterclass film (available at bbc.co.uk/tenpieces) to identify the different types of scratches that DJs use and encourage students to practice them to include in their compositions.

Alternatively, students could incorporate some of the original piece into a group performance through both live performance and sampling. Try capturing some of the original orchestral sounds and Mr Switch’s DJ sounds and encourage students to develop their own piece around this. This is a common technique used in many musical forms – taking inspiration from another piece of music has been done by many musicians including Vaughan Williams in *Fantasia on a Theme by Thomas Tallis* through to Dr Dre sampling 70s funk tracks.

Students could also develop a second section or ‘movement’ that contrasts with their first idea. Using a different set of samples and musical ideas from the live instrumentalists within the group, students could create a complementary section to perform after their original composition.

**Suggested further listening**

Tansy Davies – Salt Box  
Matthew Herbert – Mahler Symphony X  
Karlheinz Stockhausen – Klang  
Edgar Varèse – Déserts  
Grandmaster Flash  
Mix Master Mike