Birmingham Contemporary Music Group
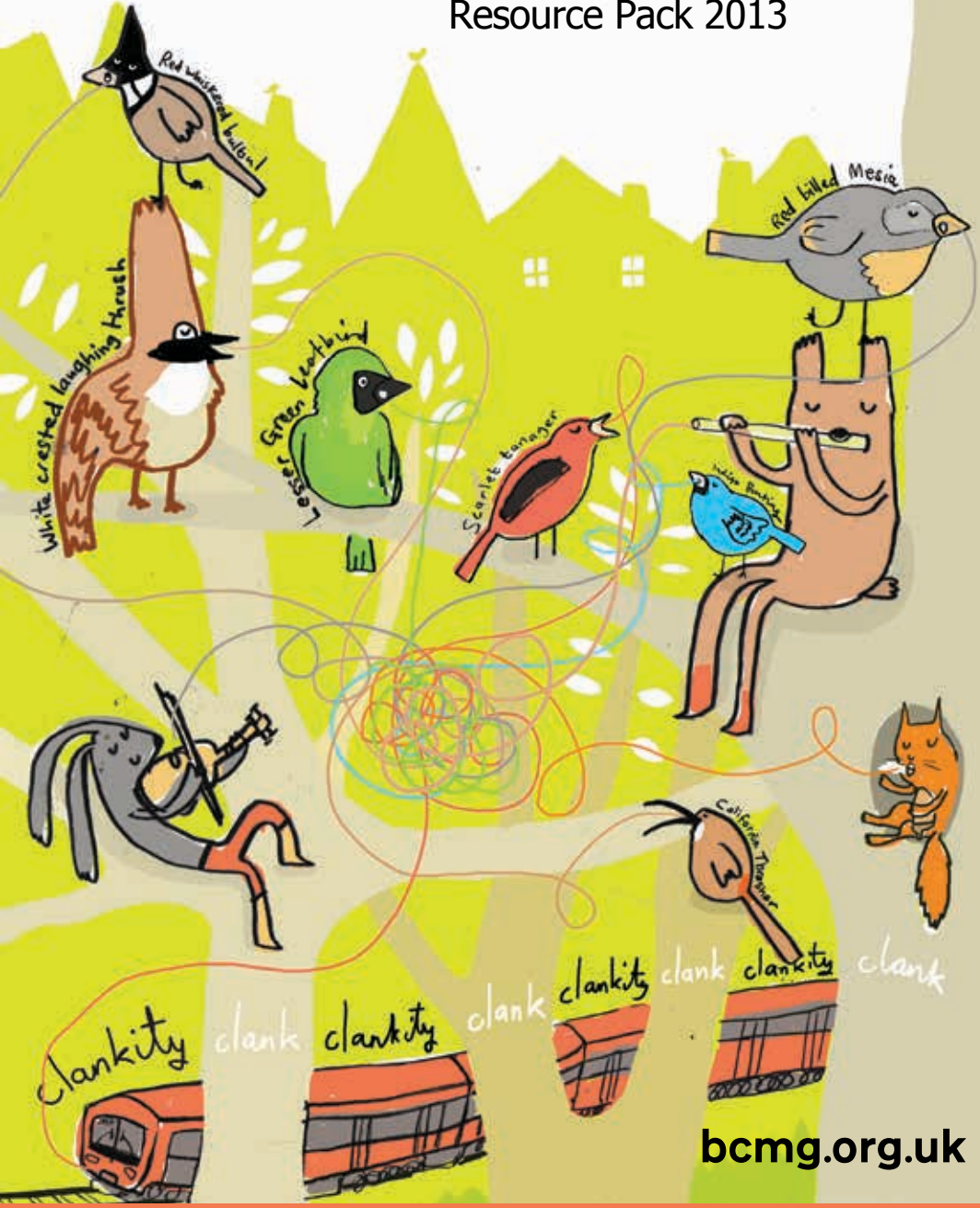
Noise into Notes

BCMG Schools' Concerts

Resource Pack 2013

bcmg.org.uk

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BCMG School's Concerts Resource Pack 2013

Welcome to BCMG's Resource Pack **Noise into Notes** designed to support our School's Concerts in 2013. The activities in the pack formed the basis of school workshops with Key Stage 2 classes leading up to a concert visit by the children.

In this pack you'll find composing, listening and recording activities connected to music that was performed in the concert. There was a loose theme in the concert of composers taking their inspiration from the sounds of the environment and the activities in this pack encourage and support children to do the same using the free software *Soundplant*.

Though initially connected to a concert visit, the activities are stand alone. Recordings of many of the pieces performed are available on YouTube and Spotify, and so could be used as complementary material.

Concert programme:

'(Mr Evans), it's starting to rain!'   *Duncan Chapman*

Composer Duncan Chapman mixes recordings of sounds collected by young people from Birmingham primary schools with live music played by three musicians (oboe, trombone and cello). The musicians echo the patterns and pitches of everyday sounds recorded in the different locations. Everyday sounds transform into new and unusual music, a bouncing ball turns into the sound of tropical insects and a distant car horn becomes a huge wave of hooting played by all three instruments.

Scherzo (with Trains)   *Julian Anderson*

This piece is composed for a quartet of four clarinets of different shapes and sizes. It turns the rhythms of high-speed trains into music.

Musicians Wrestle Everywhere   *Judith Weir*

Musicians Wrestle Everywhere is a concerto for ten instruments. Judith has often based her work on folk-music of the world. In this piece she wondered if the music of her own city environment could provide a similar inspiration. She started taking note of sounds that caught her ear as she walked around and heard wind turbulence from a nearby traffic crossing, scratchy pop music out of a tower block, and wind chimes in the back garden of a deserted house.

Crack Up   *Shiori Usui*

Composer Shiori Usui's music is often inspired by the sounds of the body. In Crack Up she has analysed the laughter of her friend and transformed it into music. Listen how the squeaky, wobbly sound of the oboe reed and the trombone playing very high create the effect of suppressed laughter and watch what unusual object creates sounds from inside the piano.

Oiseaux Exotiques   *Olivier Messiaen*

Composer Olivier Messiaen was fascinated by bird song and used it in lots of the music he composed. In Oiseaux exotiques Messiaen orchestrates for piano, wind, brass and percussions the bird song of 47 different birds from North America, India and Malaysia. Messiaen was also fascinated by ancient Greek and Hindu rhythms. These are performed by the percussion which includes temple blocks, wood blocks, gongs, a tam tam and a glockenspiel.

Resource Pack Contents

Part 1 preparative listening and recording activities
Part 2 five composing activities using *Soundplant*

BCMG's Schools Concerts are imaginative, hour-long performances designed to introduce children to contemporary classical music. For more information please see our website: http://www.bcmg.org.uk/learning/schools-and-music-educators/big-ears/

About BCMG

Emerging from within the City of Birmingham Symphony Orchestra in 1987, Birmingham Contemporary Music Group quickly established a reputation for exciting performances, innovative audience-building and learning initiatives, and a central commitment to composers and the presentation of new work. The Group thrives on innovation and invention and is critically acclaimed for championing the most forward-looking music regionally, nationally and internationally.

As a world-leading contemporary ensemble, BCMG has premiered over 160 works, most commissioned through its pioneering Sound Investment scheme, with a family of Investors supporting each new piece. In addition, BCMG's extensive Learning and Participation Programme supports young people as composers, performers and listeners of new music through an exciting range of projects in- and out-of-school.

BCMG features on numerous CDs, including an ongoing series of NMC discs devoted to British composers, with recent recordings of music by Charlotte Bray, Oliver Knussen, Tansy Davies, Alexander Goehr and Richard Causton. The Group has two Artists-in-Association, Oliver Knussen and John Woolrich, and Sir Simon Rattle is the Group's Founding Patron.

Part 1: Noise to Notes
Listening and Recording Activities

Listening is at the heart of music making, without an awareness of the sounds all around us there is a danger that we end up simply adding noise to an already noisy world. Here are some activities to encourage pupils to develop a greater awareness of sounds in the environment and then use this to develop compositions.

Listening and Recording Activity 1
Gong listening

Take a resonant instrument that has a long decay (a gong, suspended cymbal, triangle)
Ask the group to close their eyes and listen to how long the sound lasts when you play it and, when they hear the sound stop, to open their eyes or put their hand up to indicate they can't hear it anymore.

gong - starts loud - and - gradually- fades -away -to - nothing

Ask the class:

Q: Is it clear when the gong sound ends?

The question is intended to get the children to think about what they hear. You will find that as you do this several times they become more aware of the point where the sound cannot be heard anymore.

Do this several times now asking the group to remember what other sounds they heard just before they opened their eyes. Ask the each of the children to make a list. Ask them to share back their sounds and put each sound on one piece of paper to create a collection of sounds for use below.

Assembling the pieces of paper on the board in different ways ask the children:

Q: Which sound is the furthest, which is the nearest? Arrange sounds from closets to furthest.

        E.g. breath, table creak, pencil drop, door shutting in corridor, car outside, bird, aeroplane

Q: Which sounds were made by people, machines or natural phenomena? Arrange sounds in three lists.

Q: Which is the quietest, which is the loudest? Order sounds from loud to quiet. Is this the same order as the as the nearest to furthest?

You might take photos of the sequences to revisit later.

**Extension: Noticing sounds in the environment**

This activity is about developing an awareness of subtle sonic differences and details through some more additional questions. (See also the 'Minute of Listening' project in the Links Section)

Q: What a detail has the class noticed when doing focussed listening in this way that might have otherwise be missed? E.g. Can the children tell whether it has recently been raining by the sounds that cars make?

Q: Are there every day sounds that the children can now hear that they usually don't because they are so accustomed to them? E.g. projector fans, fluorescent lights, computer hard drives.

Q: Ask the children 'where is the quietest place in their school?'

Measuring Sound

Sound can be measured and described in different words and ways. Science and music often use different terms to describe the same thing.

Scientific terms
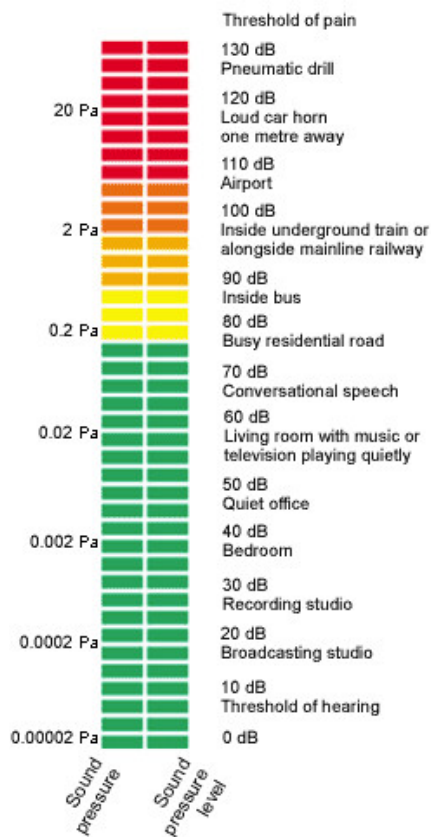
Musical terms

fff   molto-fortissimo

ff   fortissimo

f   forte

mf   mezzo-forte

mp   mezzo-piano

p   piano

pp   pianissimo

ppp   molto-pianissimo

Listening and Recording Activity 2
Location listening

Take the gong outside and get everyone in the group to find a place to sit where they can have a surface to draw on. Equip the class with some basic drawing materials (the plain index cards that you can buy in stationary shops are perfect for this). Repeat the listening exercises several times so that the children have a chance to listen to the sounds in the outside environment.

Once you have done this ask each child to make a drawing which shows where the sounds that they hear are. Tell the children that they can use pictures, graphics or words to represent the sounds. You might need to repeat the gong sound several times to help them focus on the sounds they can hear.

Try to make recordings at the same time as these can be useful then playing it back in the classroom when looking at the drawings. You might also want to take photographs of the children's drawings.

Ask the children to think about:

Q: Where the sounds are in relation to where they are?
Q: Whether the sounds are moving or still?
Q: Do they change in terms of pitch or volume?
Q: Are they continuous or intermittent?
Q: Do happen once or is the sound always present in the environment?

Here is an example by a child which shows some of these aspects. In this version it's clear where the sounds are located and their progression.
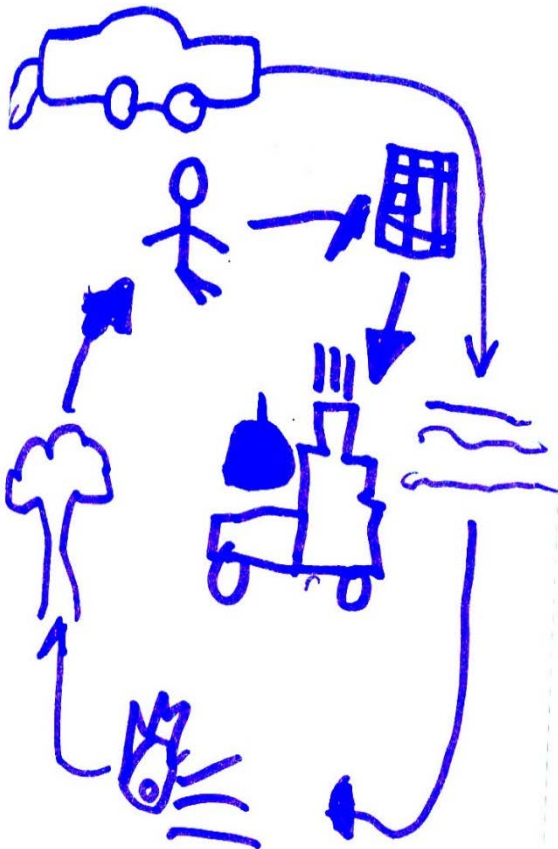
Extension questions:

Q: Is it easy to tell where the sounds are by just listening?

(This can lead to an interesting discussion about which sounds are easy to locate exactly and which are not. Broadly speaking it's easier to tell where high pitched sounds are located than ones of lower pitch.)

Back in the classroom, if possible using photographs of the children's maps on the whiteboard, discuss the different strategies that they have used to show differences and changes.

Q: What ways of showing where the sounds are and how they move are most effective?

It might be useful to do the same activity several times in different locations so that the children develop a wider range of strategies over time.

Listening and Recording Activity 3
Sound Maps

One interesting activity that reflects the listening experience is to create sound maps. Making a map using drawings, photography or internet tools can be a great way of pupils recording the sonic environment of where they live. Online there are many examples of these, some are simple images and others use elements of interactivity to allow users to navigate the map while listening to the sounds recorded in the locations on the map. Maps can also be used as a score for children to play the relevant sounds while imagining a journey from one location to another. There are lots of obvious links to other curriculum areas in this activity.

Here is sound map from a primary school after a recording trip into the countryside combining words symbols and pictures.
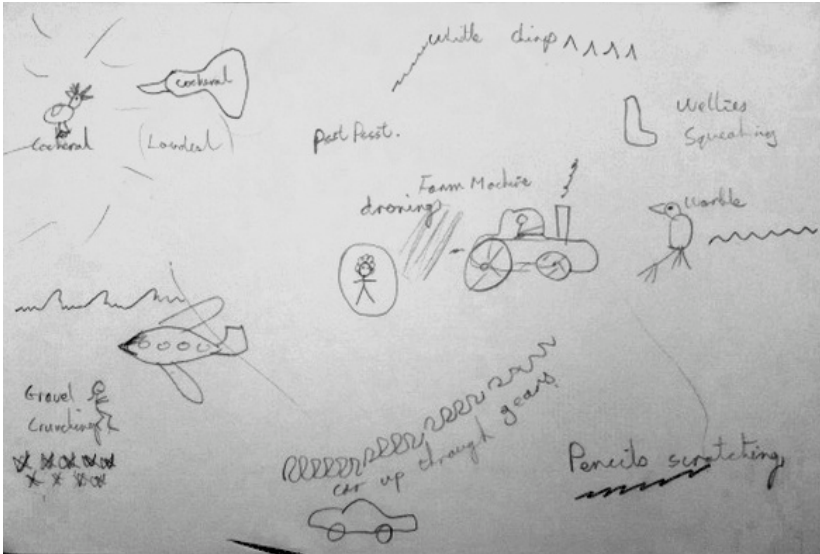
Ask the children:
Q: Can you tell whether the person who made this map was alone or with other people?
Q: Can you tell which sounds were still and which were moving?
Q: How many were made by animals? How many by machines?

Below is a sound map from a project at a city farm where different groups made pieces that were placed in various locations. The map serves as a guide to visitors to allow them to find the pieces of music hidden in various locations in the farm.

Map drawn by Riess Ballard – Young Farmer at Spitalfields City Farm

Key

| 1 | Compost boy | 3 | Space goats | 5 | Ambient ducks | 7 | Underground fish | 9 | Bike bells |
| 2 | Flock of geese | 4 | Sea in a tree | 6 | Bamboo house | 8 | Chillout pigs | 10 | Rain on leaves |

Ask the children:

Q: How many journeys could you make around the farm and hear all the sounds?
Q: Is this a piece of music or a treasure hunt?
Q: What do you think the 'compost boy' sound is? (see web-link for answer)

On this online sound map of the Isle of Dogs, London, purple dots show that there was a sound recorded in that location. Visiting the site allows you to navigate the area by sound. In some locations (the schools, community centre and music college) there are pieces of music created by people in those places.
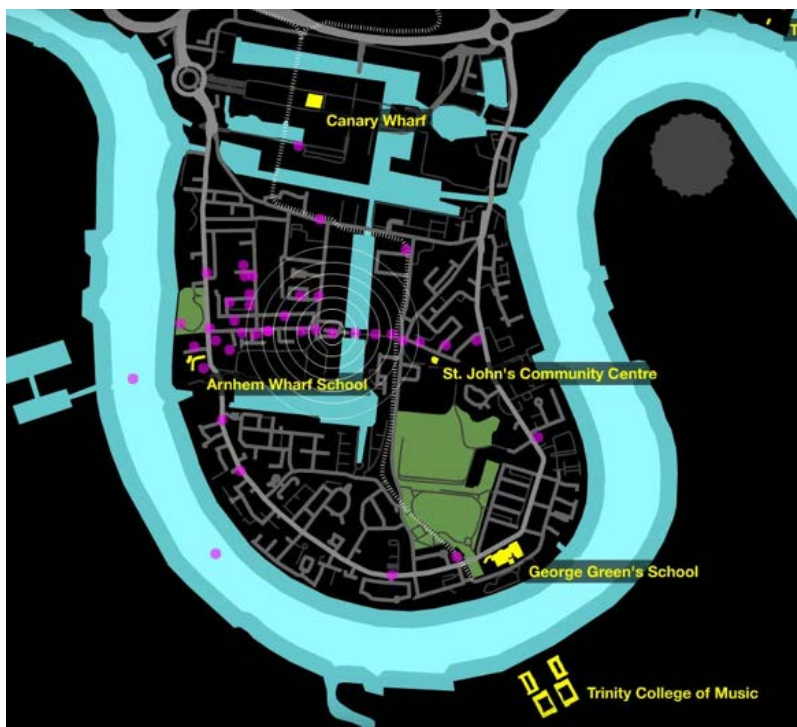
Ask the children:

Q: Have they seen this map before? Where?
Q: Can you find a place where the sounds follow a journey to school?
Q: Can you tell whether it's a very noisy or quiet place by looking at the map?

This is a 'tranquillity map' of England. It shows where the noisiest places are.
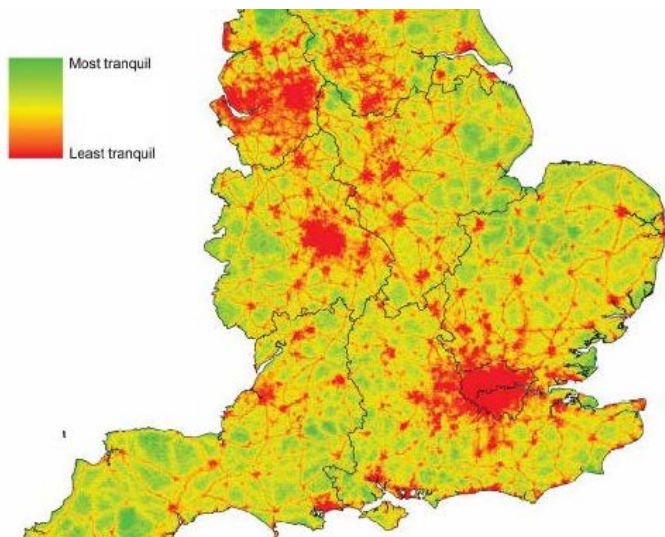
This map could be a great starting point to ask the children to think about:

Q: Where would you most like to live?
Q: What colour would the place you are be?
Q: Do you think the world is getting noisier? If so, is this a problem?

Below is a part of the Aberdeen Soundsites map which uses Google Earth and allows anyone to upload sounds they have collected. Everywhere there is a logo there is a corresponding sound to listen to:
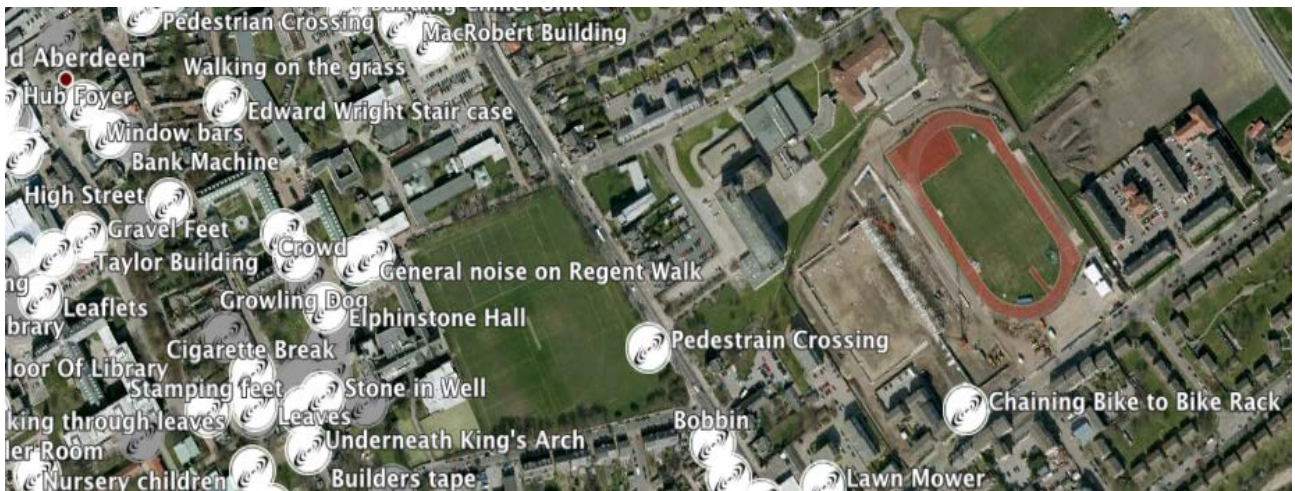
Ask the children:

Q: How many sounds are inside? And outside?
Q: Could they use this map to find your way without seeing?
Q: Could you use this map to arrange to meet someone at a place where a particular sound happens? If so where would it be?

The internet has made global sound-mapping relatively simple. Google Earth has a facility to embed sounds (as well as images at various locations).

A sound poem:

Here is a poem by Edwin Morgan where the image is made from the pattern of the words that are locally used to the Chaffinch. The text has been arranged into a map of Scotland with the corresponding word in the location where it is used. This is an extremely direct way of linking sound, language and geographical location

(*Chaffinch Map of Scotland* is a poem written in 1965 by Edwin Morgan (b. 1920), Poet Laureate of Glasgow (1999) and (since 2004) Scottish National Poet (1))

Listening and Recording Activity 4
Recording sounds to use in composition

There are many methods available these days for recording sounds in the classroom and in other locations. Easyspeak recorders have the advantage of being relatively cheap and simple to use but the quality isn't terribly good. There are many other alternatives ranging from mobile phone apps to field recorders costing hundreds of pounds. If you are going to be buying equipment it's important to consider how robust it is, many of the cheaper high quality machines have too many small buttons and would easily break if dropped by primary school students.

Recording, stage by stage:

1. Divide the class into groups of 4
2. Equip each group with a recording device, pair of headphones, recording log sheet and something to write with.
3. Starting in the classroom make some test recordings so that each group are clear about how their machine works and how to playback the sound that they have just recorded.
4. Ask each group to make a log of the sounds they record AS they do it (this is the part that pupils often neglect but it's important to try and have a written record of the sequence of the recorded sounds so that they will be easily able to find them when they come to use them in composition).
5. Get the children to take turns to use the recording device and make the recording log.
6. After making test recordings for a short time give the groups a clear time limit and idea of where they CAN go to make recordings in a wider area (playground, other classes, hallways, office etc).

What to record? Some strategies for collecting interesting sounds

If you simply give a group of students a recording machine and send them to collect sounds they are likely to return with mostly recordings of themselves

Establishing **WHAT** they are going to record vital.

Ask the class:

Q: Are they going to record the sounds of a place without intervention in making the sounds?

OR

Q: Are they going to record sounds of what they do with what they find i.e. sounds that they are actively playing?

An effective strategy is to start with listening to the sounds that are in the environment already. This avoids the tendency for the children to go around hitting things. However, you could gradually introduce the idea of the children playing things e.g. if you find yourself by a pond on a gravel path then it would be daft NOT to drop a few stones in.

Making a sonic treasure hunt with children

One way of organising the collecting of sounds is to have a sonic treasure hunt.This involves creating different kinds of lists of sounds to find. The kind of list you create with your class will depend on future creative activities you might plan to do with the sounds.

The children could create a list by 'thing':

- A sound made by a machine
- A sound made by travelling from inside to outside
- A sound made by a non-human animal
- A sound made by someone you know
- A sound made by dropping something
- A sound made by food
- A sound made by a musical instrument
- A sound that makes you think of the sea
- A sound made by the weather
- A hidden sound that no one has heard before

Or a list that has different categories of sounds:

- A quiet sound
- A loud sound
- A sound which repeats
- A sound which is random
- A sound that gets louder
- A sound that gets quieter
- A short sound
- A long sound
- A continuous sound
- A high sound
- A low sound

This is a list which is in the form of visualisations of the types of sounds to collect (see also Composing Activity 5).
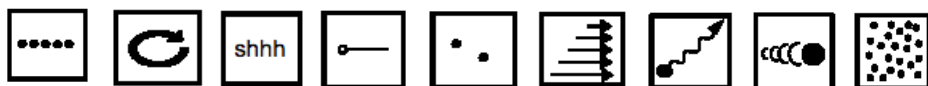
Either, ask each group might try to find all the sounds or divide the list between groups. Get each group to copy down the list of sounds they are going to collect BEFORE going on their recording trip.

Another approach could be to decide that everyone is going to collect machine sounds to eventually make a piece about machines. If you end up with ten different machine sounds, the children have the compositional possibility of creating a journey piece that explores machines.

When all the sounds have been collected you can then move on to starting to compose with them.

Maximising the quality of your recordings

Often children will make recordings that don't quite live up to their expectations. Below are some suggestions for children and teachers for how to try and get the best possible recordings so that you have some good quality materials with which to compose.

Encourage the children to:

- Try and make a lots of short recordings rather than long ones. NB It's much easier to work with 10-20 second sound files rather than long recordings that require lots of editing.
- Think of the recordings as snapshot photographs rather than movies.
- Hold the recording device close to the source of the sound
- Listen with their ears rather than always following what they can see
- Go to a location and record rather than start recording as you go
- Make sure that they keep a log of what is recorded in sequence. (This will help them to find particular recordings when they come to use them in their compositions).
- Try recording the same thing from different angles. E.g. moving from inside to outside.

Things to think about:

- Have a practice recording session in the classroom before going out on a trip. This will ensure that the children understand how to use the equipment as well as get them to realise that they are likely to record every vocal sound that they make!
- Managing 30 pupils' recordings can be very time consuming so separate the recording from the listening and composing sessions.
- Make a compilation of sounds from everyone's recordings as some children will have much better and complete recordings than others.
- Remember that it takes as long to listen back to a sound as it does to record it!
- If you have the choice .wav files are much better than MP3 files.
- If possible, make sure that the children have a means of checking the recordings as you go. Giving everyone headphones or each pair can be a good idea to be certain that everything is working.
- If possible make your own recordings yourself alongside the children so that there is a 'safety net' set of sounds for those who might fail to record anything.

A template recording log:

Number	Sound name	Description	Length
001	bird 1	single bird on school roof	20 seconds

Part 2: Composing activities using Soundplant

An Introduction to Soundplant

The software *Soundplant* works on both PCs and macs and can be downloaded from http://www.soundplant.org/index.html. The unregistered version has file type limitations but is fully functional. *Soundplant* turns a computer keyboard into a versatile sound player. You can assign recorded sounds to keys and play them using the keyboard. You can also loop, change pitch, edit the sounds and can make sets of sounds that can be played rhythmically.

The advantage *Soundplant* has over other free software for making music is that it turns the computer into an instrument rather than into a recording studio. This means that it can be used as part of an ensemble with instruments and voices as well as in a laptop orchestra.

Soundplant is fairly intuitive and one can simply drag and drop sound files onto keys. There's a basic tutorial for the programme below. This is for a slightly out of date version which didn't allow for drag and drop loading of sounds onto keys.

http://www.yorkmusicservice.co.uk/resources/downloads/BASIC_GUIDE_TO_SOUNDPLANT.pdf

Some useful tips for use by groups:
- It's much better to get some external speakers than rely on the computer's internal speakers. A bit of volume really helps children have a good experience with the software.
- If you are on a network it's a good idea to try and install the software locally (on the individual computers) and the recorded sounds. You might need to do a bit of copying to get this to work.
- Selecting PLAY FROM RAM will help sounds to load and play smoothly
- It's a good idea to let students have a free play with the programme before you do any composition, like any musical instrument you need to build up a bit of fluency before you use it in a group situation.
- It's a good idea to keep sounds separated on the keyboard. E.g. Don't put the huge explosion sound next to the whispers as children can be a bit clumsy.
- There is an inevitable period of chaos in using multiple computers. It's hard for people NOT to constantly click at random. Try to accept this. Finding ways of working that encourage its creative use are more effective than strict instructions.
- When you first load a sound it is in SUSTAIN mode. This means that repeated clicking of the same key will quickly create a huge noise. I would recommend that you change this to KILL (click once to play, click again to stop) or FADE (click once to fade in, click again to fade out).
- Encourage students to use the keyboard and NOT the mouse, Soundplant has the ability to play several sounds simultaneously. If the children use the mouse they can only play one sound at a time.

Composing and improvising with Soundplant

Why use a computer when you have instruments and voices?

Usually we think of the computer in educational contexts as a tool for individuals to store, process, manipulate and distribute information. It can do these tasks really well but in addition to this it has the capacity for becoming a tool to be used collectively in the creation of music.

Music is often a collective activity; however, the computer is usually seen as an individual tool. What making music with multiple computers can offer is a great way for individuals to play together using sounds that they themselves have recorded and created. In addition to thinking about the more experimental end of music making, using computers to create original compositions can be a really stimulating activity for those children who struggle with singing and playing instruments.

Most schools these days are well equipped with ICT facilities and it is a small step to start to use these for creative work in music.

There is a long history of composers using recorded material in composition: birdsong, machines, recordings of machines and weather have all been used in music for many years. Film composers often make use of recorded materials in conjunction with instruments and voices and many popular musics have samples that form part of the sonic texture.

It can be a great way of introducing children to a variety of other ICT skills (copying, saving, editing, sharing data etc) which can be used in other curriculum areas. *Soundplant* software is simple to use, easy to understand and builds on the generic ICT skills that young people have.

Three ways to compose with Soundplant:

The key to getting the most out of using Soundplant to make music with groups is to think about how the sounds you are using will be organised. It's possible to do this in a number of ways.

The sounds can be organised by:

1. Everyone having the **same sounds** mapped to the **same keys**
2. Everyone having their **own sounds** which are different to the others **mapped to any key**
3. Everyone starts with the **same set of sounds** and then makes their own set.

The sound sets could be:

1. A collection of unrelated sounds
2. A collection sounds that are related by where they have been recorded
3. A collection of sounds that are related by their sonic properties (loud, quiet, long, short, sudden…)

The following four activities explore various ways of creating compositions with groups of children using recorded sounds and the Soundplant software.

It is important to allow enough time for people to get familiar with the software before asking pupils to compose with it.

Working with multiple computers inevitably brings up problems with equipment, logging in, permissions, saving etc. It is highly probable that your computers haven't been used in this way and careful preparation and testing is essential so that you are sure that the software will run smoothly and the pupils are able to access the relevant sounds on their machine for each activity.

Composing Activity 1
Loops, rhythms, drones & events

Set-up:

- The children should be in pairs with a single computer between each pair.
- Each computer needs to have a small external speaker so that it can be played as an instrument in the group.
- Each pair should have access to a set of sounds that they have recorded so they are able to select from a few options. The best way to do this is for the teacher to make a set of sounds from what the whole class has recorded and put these in a folder on the desktop of each computer.

The first task is for each pair to choose a sound from the desktop folder and then make, by editing, three different types of musical ideas.

> *This stage is about listening to the recordings and seeing what their potential is. Does the chosen sound have a clear rhythm? Is it a pitched sound that could be layered with transposed versions of itself? Is it a dramatic start or ending sound or a background ambience?*

The three different types of musical idea are:

1. A **rhythmic loop** that repeats - one for each person in the pair. This needs to be able to fade in and out.
2. A **drone/sustained** sound. This also needs to repeat but should be less rhythmic than 1. This also needs to loop but could be at a different pitch to the original sound.
3. An **event** - something like an opening or closing sound. Or something that has a dramatic effect. This needs to be a 'single shot' sound so no looping allowed.

Once everyone has edited the sounds (allow about 10 to 15 minutes for this). The next activity is designed to allow all the class to hear what each has created and be able to evaluate there potential for composing.

As a whole class ensemble, start with the **drone** sound played by one pair then add in others players in one at a time. Now add in some **loops** layering them on top of each other. Once this has been established point at individual pairs to trigger the **event** sounds. Repeat in different combinations and use the following questions to reflect and evaluate with the class. After a while you might ask individual children to direct the ensemble maybe developing different signals for the three different ideas. Or you could have three children conducting each responsible for a different ideas i.e. one triggers drones, one loops and one events. All of the ideas can be stopped and started.

Ask the class:

Q: Does it sound better with a few people playing at once or is it best with everyone?
Q: Would it be more effective if the sounds were in a different order?
Q: Do some loops fit together better with others?
Q: Did the pieces have good beginnings and endings?

Continuing:

Once you have explored some of the possibilities of these sounds the children can start to compose with them. This example is for a whole class contributing to one piece BUT you could ask each pair to come up with a plan for how they would like the piece to be.

A simple composition using all of these elements could consist of:
Drone sounds joining one at a time then, after a count of four, a big event sound that stops everything. Then build another combination of drones and/or some of the rhythmic loops. Pause before a final big event sound.
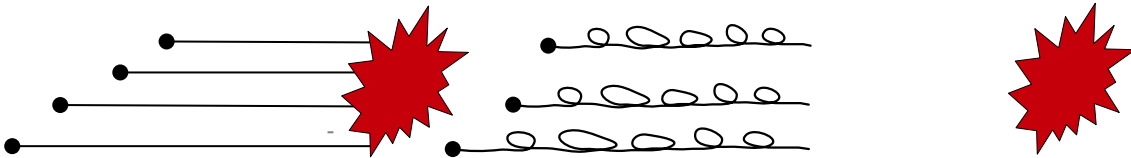
Composing Activity 2
Transforming sounds

In this activity every pair of children starts with the same set of sounds but then makes their own choices about how they will manipulate them to create their own set. This is a good way of getting the children to explore a small range of sounds and to treat them as mouldable material which they can shape. This activity also introduces the idea of creating music which is 'spatialized' i.e. a feature of its character is that it appears from different places.

Set up:

In Soundplant, map the same set of five sounds to the numbers 1, 2, 3, 4, 5 on all the computer keyboards. These can be any type of sounds: you could use ones collected by the group or, if you are working on a specific topic, you could use sounds connected to that topic. Freesound.org has a huge range of easily downloaded sounds that could be used if you don't want to record your own. Have the children in pairs with one computer between each pair.

Ask the class to make three different versions of the sounds on 1, 2, 3, 4, 5. They should store these on the computer keys on the keyboard diagonally down from each number i.e. Q, A & Z would be variations on 1 and W, S & X would be variations of 2 etc.

A good way of doing this is for everyone to use the same set of transformations. E.g.

1. The second row are short versions
2. The third row higher pitched loops
3. The fourth row are lower versions

Playing together:

Starting in one place in the class (ideally in a circle) ask a pair of children to play the original sound on number 1. Ask each pair to join in pair at a time until the sound spreads throughout the group. When it gets back to the start move onto the transformed versions (Q) and do the same thing. (You could start the transformed ones before the original sound has gone all the way round to create a continuously changing wave of sound. Do this with the other sounds.

Ask the class:

Q: Which sound would be best to start with?
Q: Should the sounds always move in the same direction?
Q: Could there be a moment where everything changes (Maybe all play one together or have a short sound that passes between the pairs)
Q: If this is the soundtrack to a movie, what is happening? Where is it set? What time of day is it? What's the weather like?

To perform with this setup it's good to put your audience in the middle of the circle so that they can experience the movement of the sounds.

Composing Activity 3
Sound journey

This activity is in two parts: the first part is an exploration of close up sounds inside the classroom to outside the classroom and involves pupils collecting a series of sounds which chart the journey from inside to outside. The second part involves them using Soundplant software to perform this as an audio composition. Musically this activity is connected to the idea of creating music that travels, creating soundtracks that reflect specific environments and finding interesting sound worlds in everyday surroundings.

Recording:

Ask the class to work in pairs. Do the gong listening exercise to develop a sense of sonic awareness before starting recording. The first task is to make a set of recordings starting in the classroom and ending up outside that progress from close up sounds to an expansive outdoor ambience. *(It's not necessary to do these in sequence so splitting the group up is a good way of ensuring that everyone gets a reasonable amount of quiet to make their recordings).*

Give each pair has about 20 minutes to make a set of 10 short recordings (no more than 10 seconds each) that cover traveling from inside to outside. Make sure that they make a list of these as they go. Back in the classroom allow some time for the pairs to listen to what they have recorded (on headphones) before importing the recordings into Soundplant.

Ask each pair the following questions and ask them to play the corresponding sound[1]
Q: What's the smallest sound you have recorded?
Q: What happens when you go from one environment to another?
Q: Do you have a 'mystery sound where the source is hard to identify?

Make a Sound Journey:

Before the session, copy the recorded sounds from each pair into a folder on the desktop of each computer. (*It's worth making a separate folder for each pair of pupils and putting them all on all the computers as it's often a difficult to get each child on the same computer each time. Or, if you are using a network, you can have all the sounds in their corresponding folders in one location*).

With Soundplant open on their computer, each pair now has to import their set of inside outside journey sounds. The children need to map the sounds onto the keyboard so that it's possible to replay the journey sonically in sequence. Allow a time for each pair to rehearse playing their inside outside sound journey before sharing this with the class.

Ask the class:
Q: How should the sounds change from one to the next? E.g. is there gradual change from one sound to the other? Is there abrupt changes triggered by, for example, the opening of a door or window?
Q: Do the children think that the listeners should we be able to hear exactly what the sound was and recognise it or not?

Extension Activities

1. Ask each pair to make a score for their piece and then to give it, along with the key map, to another pair for them to realise. The score needs to show which keys to play with some idea of how the timing works.
2. Taking one of the pieces, make a sound map that follows the sonic journey from inside to outside, and maybe back in again. See images earlier in the pack for examples.

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1   If you are using Easyspeak recorders you can have a simple stereo mini-jack cable for them to connect the individual recorders for playback with the other end connected to the speakers in your classroom (usually there is a phono type socket where a computer can be connected to speakers OR alternatively use the same mini-jack plug that you use to connect your computer).

Composing Activity 4
Card improvisation game

The idea behind this activity is the pupils, as an ensemble of laptops, to develop fluency in playing and responding to cues. It also is a way of devising compositions that could be performed to an audience.

Set up:

Before the session: Make a key map in Soundplant that has a set of sounds of these types and load onto each computer. (*It's a good idea to put the sounds onto keys that are not adjacent on the keyboard as many people can be a bit clumsy when trying to watch a conductor and press the right key)*

- A long sustained sound
- A series of short random sounds
- A rhythmic sound that repeats
- A sound that rises in pitch
- A single short loud sound

Make two sets of cards using these symbols
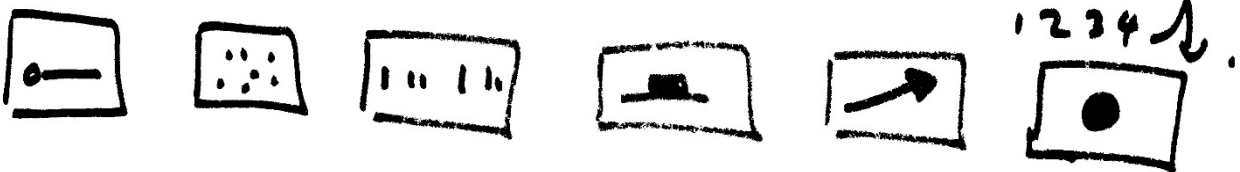
long sound   short   rhythm   rest   rising   1,2,3,4, LOUD[2]

Using the cards, one pupil, the conductor, holds them up one at a time to trigger the class to play the corresponding sound. Start with everyone playing the same sound together so that the children can get used to finding the right sound to go with the selected card. After doing this several times (switching conductors from time to time), the conductor can then select individuals to play particular sounds by showing a given card to the individual and build up a short piece this way. Having two conductors (using the second set of cards) gives a further level of complexity so that they have to work together to create one piece.

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2   In order for the LOUD sound to be played by everyone at the same time there needs to be a silent count in

Composing Activity 5
Drawing sounds

The idea here is to use drawing firstly, as a way of listening (children often find it hard to simply listen The act of drawing is a good way of encouraging them to listen in a way that is different to what they might normally do. Drawing sounds encourages people to think about exactly WHAT is being represented, volume, pitch, texture? What is the source of the sound? Or, what emotional response do they have to the sound? This can be an excellent introduction to thinking about notating music of all types.

Make a series of recordings of different sounds. Choose six that have different characteristics in terms of volume, pitch/unpitched, density, random or repetitiveness.

Ask the children to divide a sheet of paper into six parts (A3 is better than A4 if you have the space). While listening to the sounds one at a time, ask the group to draw each SOUND. This can be a bit confusing for some as people will often draw the thing that MAKES the sound rather than the shape of the sound. If you are having this problem it's a good idea to model this with the whole group. It's also worth having a discussion about what elements make up the sound you are listening to i.e. duration, pitch, movement, density, is it a single sound or more complex etc.

When you have done this you will have a series of drawings like this one:
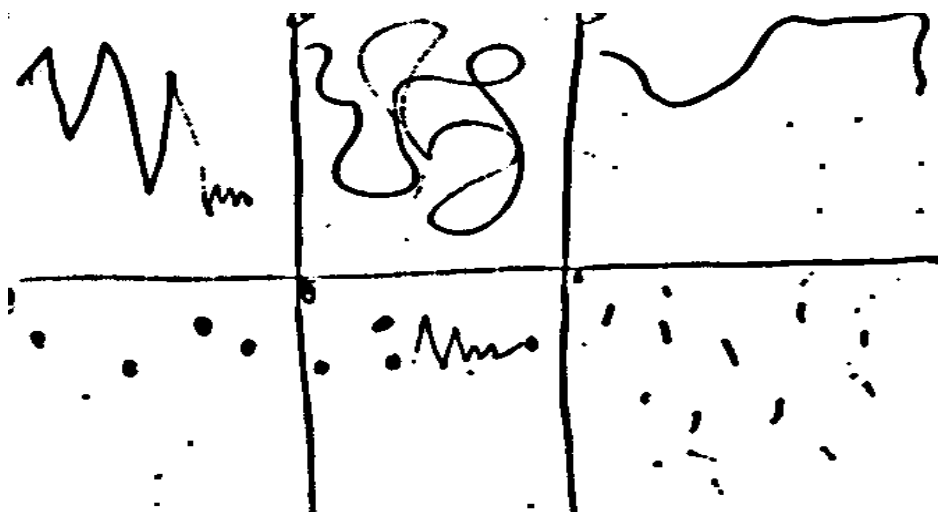
These can be cut out and used as a score for a Soundplant ensembles (as in the previous activities) or as a stimulus for further exploration.

One idea might be to the images as notation for an acoustic instrument. This can raise lots of questions about visually represents what sonically? For example:

Q: Are high notes always at the top and low at the bottom?
Q: How do you know how loud is it?
Q: How do you know what should the speed it is?

Converting the sound to an image can also lead to other interesting ways of creating music and visuals. If you make a sequence of images and then give them to someone who has no knowledge of the original sounds they can then use them as a storyboard to create a new piece with a different narrative entirely.

If you are keen to explore ways of doing this with technology there are several programs that allow this. The most simple (and free) is Coagula (PC only) which allows you to convert images to electronically generated sounds.

Links

Acoustics http://www.acoustics.salford.ac.uk/schools/teacher/lesson4/flash/whiteboardcomplete.swf
Sound around you (a world sound map) http://www.soundaroundyou.com/
Sources of sounds you can't record in class Freesound.org
Sound & Music (UK based portal for sonic arts and new music) http://www.soundandmusic.org/
World Forum for Acoustic Ecology http://wfae.proscenia.net/
Soundsites Aberdeen (online active soundmap) http://www.aberdeensoundsites.net/
London Sound Survey (gateway to sound maps, journals etc) http://www.soundsurvey.org.uk/
Radio Aporee (Global Sound Map) http://aporee.org/maps/=
Isle of Dogs Music soundmap http://www.iodmusic.org/youarehear/
Minute of Listening http://www.minuteoflistening.org/

Things to read

Horrible Science Series: Sounds Dreadful
R.Murray Schafer: The Soundscape
R.Murray Schafer: The New Soundscape
R.Murray Schafer: Ear Cleaning
Augoyard & Torgue: Sonic Experience, a guide to everyday sounds.
Leigh Landy: Making music with sounds
John Finney (Editor), Pamela Burnard (Editor). Music Education with Digital Technology.