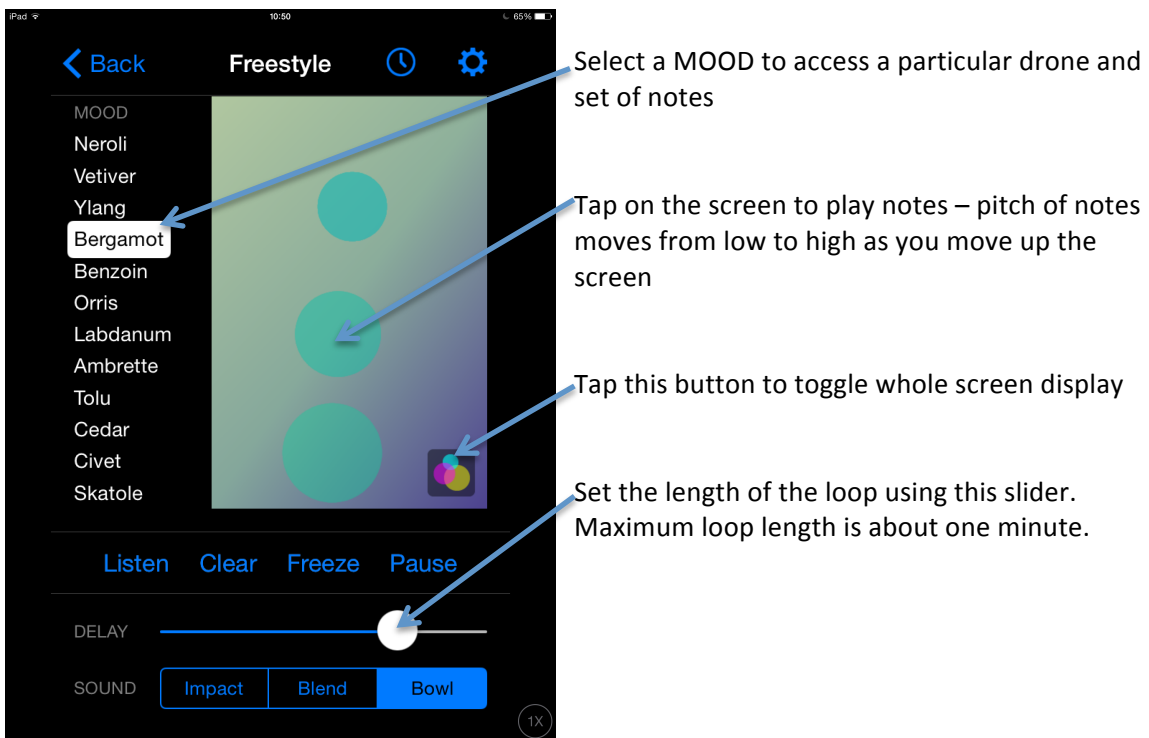# Bloom – a resource for music teachers

Bloom is a generative music application for iOS created by Brain Eno and Peter Chilvers. The software plays a low drone and touching the screen produces different tones, which play in a loop. Download it directly from the app store here:
https://itunes.apple.com/gb/app/bloom/id292792586?mt=8

In this resource, we show how Bloom 'works' – covering the essential functionality of the app. We then go on to consider how teachers might use this resource with their students, by suggesting a range of activities. These activities are not intended to be prescriptive: they can be used flexibly. These can be adapted or modified so that many will be appropriate for students from upper KS2 - KS4 and in some SEND situations.

The Interface

The diagram below explains the basic functions:

Select a MOOD to access a particular drone and set of notes

Tap on the screen to play notes – pitch of notes moves from low to high as you move up the screen

Tap this button to toggle whole screen display

Set the length of the loop using this slider. Maximum loop length is about one minute.

This is a very simple app with just a few functions. Nevertheless, there are a range of classroom teaching and learning possibilities which can be devised for whole class and individual musical exploration. Here are a few suggestions:

The Projects

Aural Training

By combining a graphical interface with sound generation, Bloom provides us with a number of possible activities for developing the musical ear. Some of these activities are quite basic – others are more advanced.

Set the loop time to about ten seconds. Then play a short sequence of notes. Begin with just three or four. You can work with longer phrases as the students become more confident. You can choose whether to project the Bloom display on a screen or just have the students respond to what they hear. As the loop repeats the sequence, student can respond in a number of ways:

- Draw the pitch movements in the air, using hand movements, after the sequence has played.
- Echo the sequence by singing the notes
- Work out the notes and copy them on a musical instrument
- Work out the names of the notes and write them down as letter names or on a stave [you may want to tell the students which scale you are working with – see Appendix for more on this]

Improvising and Developing Melodies

Bloom is a great app for working with improvised melodies.

- Set a loop length of about ten seconds and ask the students to devise a short phrase using say 6 to 10 notes. Listen to the loop repeating. If they are not happy with their phrase, they can press CLEAR and start again.
- Now double the loop length and add a second phrase.
- Increase the loop length again and add a third phrase. Perhaps this could be a copy or variation of one of the previous phrases?
- Finally, increase the loop length again and add a final phrase. Encourage students to end on the root or home note by playing the final note at the bottom of the screen.

'Transcribing' melodies

Students can go on to 'transcribe' their four phrase melodies, using a grid similar to the one below. They can either do this by ear, or by following and notating the graphic display as it repeats. Their transcription might look like this:
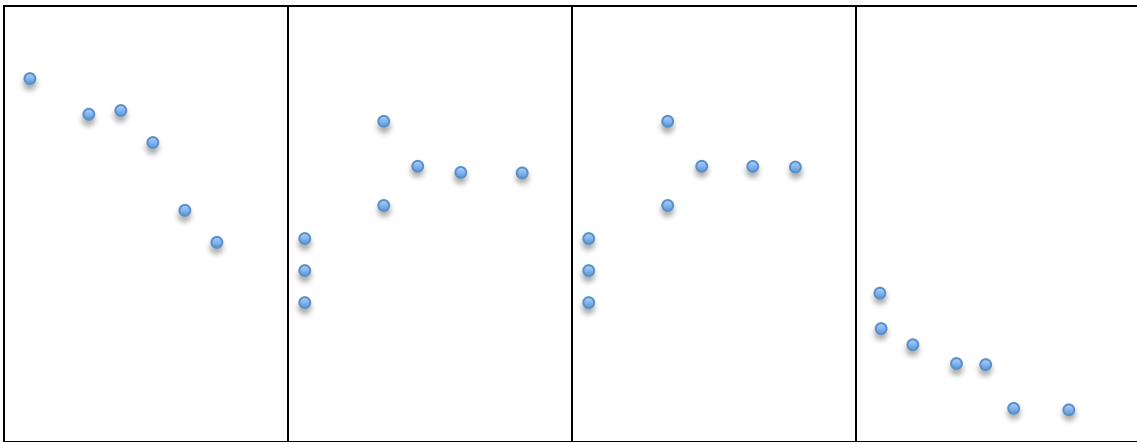
Note in the example above, phrases two and three are the same. These phrases also both begin with a three note chord. [It is possible to play several notes simultaneously].

Call and response

A great improvising idea is to use Bloom for a call and response activity for two players: a musical conversation. The first player plays a phrase on Bloom and the second player suppliers an answering phrase. The students can either share the same device or play on separate devices.

Variations of this activity are for one player to play Bloom and a second play to use a different instrument/sound source or voice. Or one person can play calls - and leave spaces for responses, which they insert when the loop repeats.

Using Bloom for accompaniments or backings

The drone sound generated by Bloom can make a highly atmospheric, ambient backing for other instruments to play over. Students will need to be aware of the notes used by the drone is any given MOOD selected. For example, 'Bergamot' uses the notes of an A major 6th chord – A C# E F#. See the Appendix for more on this. So this drone will provide a backing for music in the key of A major.

'Composing' using Bloom

Composing using standard notation with Bloom is probably not a good idea, since it is not that easy to determine exactly which notes are being played. However, using graphic scores as a means of capturing a worked out piece can work well, where the exact pitches being played are not that critical. Refer back to the *Transcribing Melodies* activity, which explores the relationship between sounds made and graphic representation.

This activity can be structured by providing a grid into which students can enter their notes. A grid such as the one below can be used for composing duets.

Count	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Player 1								
Player 2								

Notes

The grid is for eight phrases. One player counts a steady four beats for each bar – or a conductor or metronome can be used. Different tempos can be used or, for more abstract music where rhythm is not a parameter, the counting can be dispensed with.

A good way to start is to have one player playing simple repeated accompaniment patterns while the second player plays a tune over the top. Here is an example:

Count	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4

Player 1	o
	 o
	  oo
		o
		 o
		  oo
			o
			 o
			 o
				o
				 o o
				o
					o
					 o
					o
						o
						 o
						 oo
							o
							 o o
							  o
								o
								o
								 oo

Player 2	 ooo o	 ooo o	 ooo o	 ooo o	ooo o	ooo o	 ooo o	 ooo o

Changing the Mood

On the home screen it is possible to change the MOOD of the music. There are twelve different settings with evocative names such as Neroli, Bergamot and Labdanum and other aromatherapy oils. Each mood has its own distinctive set of drone notes and associated scale. Some are very calm and restful – others more unsettling.

Working with different moods can make a good starting point for some cross curricular work, where students respond to a particular mood through dance, artwork or creative writing.

Appendix

As we noted earlier, working out the notes used in a given mood's drone and scale can be helpful for more advanced work. Here are a couple to get you started:

Bergamot

Drone: A C# E F#

Notes: A E A B C D E F# G A B C D E F# G A B C D E F#

Etc.

Cedar

Drone: F A C D E

Notes: F   C F G A B C D Eb F G A B C D Eb etc.