

GCSE

Step-by-step
Composing

Atonal Music

This project aims to develop pupil awareness and understanding of atonal music through a 'hands on' approach to composition.

The prospect of writing a piece in such an 'Alien' style can be initially daunting so the project is broken down into small steps.

This provides the pupil with an opportunity to develop a composition, which could be in contrast with other compositions in the coursework folio as well as being notated.

There is the possibility to stimulate creativity with visual resources. The pupils could write an underscore to a section of film, some examples are:

- The Matrix - Don Davis
- Blade Runner - Vangelis
- Titanic (the sinking!) - James Horner
- Sleepy Hollow - Danny Elfman

And last but by no means least...Psycho! - Bernard Herrman

Other possible stimuli are Expressionist and Surreal paintings (e.g. Munch's 'Scream' or some of Dali's paintings). Poetry can be used for word settings (e.g. Wilfred Owen's 'War Poems' could be used and also linked to Britten's 'War Requiem').

A possible sequence of study through this project is as follows:

- Background notes.
- Listening to atonal music.
- Learning the Chromatic Scale.
- Learning how to write a 12 Tone Row.
- Learning how to develop a 12 Tone Row.
- Learning how to add rhythm to a 12 Tone Row
- Writing an atonal composition for instruments.
- The use of IT to enhance compositions.

'All notes are equal, though some are more equal than others'.

The 'birth' of atonal Music is dated to 1909 when the Viennese composer, Arnold Schoenberg (1874-1951), wrote his '*Three Pieces for Piano*', Op. 11. This was the first totally atonal piece written and was to be a significant composition in the twentieth century.

Atonal music was born from grandeur of *Romantic Music*. Towards the end of the nineteenth century Romantic composers such as Mahler and Wagner were stretching tonality to its limits as well as writing massive scale orchestral pieces (Mahler's Eighth Symphony, titled '*The Symphony of a Thousand*' is a fine example.). For a while Schoenberg wrote in this grandiose Romantic style, his composition called '*Gurrelieder*' (*Songs of Gurre*), is scored for five soloists, four choirs, narrator, eight flutes, ten horns, seven trumpets, seven trombones, five tubas, about seventy strings - and that isn't a fully tally.

From 1900, Schoenberg moved in a new direction. He sought to develop a music that expressed the 'inner'; the abstract and subjective. This coincided with other significant events including Freud's research into Dream Analysis and the Expressionist Art movement.

Expressionism sought to openly portray the dark sides of the human psyche in a vivid, violent and grotesque manner. Beauty ceased to exist. Nightmarish images were portrayed of souls in self-torment and atonal music was considered sympathetic to these images as well as breaking away from the Symbolic gestures of Romanticism.

In 1924, Schoenberg devised a means of structuring the 'chaos' of Atonal music with 12 Tone 'serialism'. Where atonal music gave the composer freedom to select notes at will, 'serialism' arranged the 12 notes of the chromatic scale into a specific order so that each note was equal.

There are various musical elements that can be recognised when listening to atonal music.

- Pitch - there is no sense of key (Major or Minor). Melodies are angular and fragmented rather like looking at your face in a 'broken mirror'. Melodies can be unpredictable and erratic almost like 'nightmarish birdsong'.
- Major and Minor chords are replaced by 'clusters' of notes which can be closely packed together creating a dense sound or spread widely creating a stark sound. The clusters do not relate to each other. They sound 'clashy' and dissonant.
- Rhythms are unpredictable. Any regular sense of pulse is avoided. This is created by the use of rests to break up a melody or the use of unusual time signatures (e.g. 5/8, 7/16 etc.). This adds to the abstract character of atonal Music.
- There are sudden violent changes in volume (dynamics). The contrasts add tension and suspense to the music.
- Composers wrote for unusual combinations of instruments often with 'clashing' sounds (timbre). Advanced techniques are often used to create new and strange sounds e.g. Muting, Harmonics (string instruments), Glissandos and Flutter-tonguing. Composers occasionally write for the extremes of an instruments range as this creates a 'tension' in the sound as it is physically challenging for the instrument (as well as the player!).
- Regular structures are avoided (e.g. ABA). A piece may consist a recurring fragmented idea broken up by contrasting material. Some composers used 'Parody' in their pieces for example, Berg wrote an atonal waltz in his opera called 'Wozzeck'.

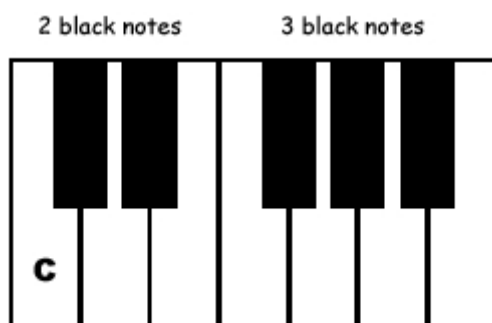
Atonal music is very descriptive. Listen to a piece of atonal music and write a story that reflects what is happening in the music.

Prep Work: Chromatic Scale

Atonal Composition

Atonal music is based on the thinking that 'every note is equal', this means that there is no main note that is the basis of the piece.

The scale on which Atonal music is based on is the **Chromatic Scale**. The **Chromatic scale** is the 12 white and black notes starting on C.



Play the Chromatic scale in this number order. Then play the following patterns. After you have played them write them down.

Pattern 1.

| | | | | | | | | | | | |
|---|----|---|---|----|----|---|---|---|----|----|----|
| D | F# | G | C | D# | G# | A | E | B | A# | F | C# |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |



Pattern 2.

| | | | | | | | | | | | |
|---|----|---|----|---|---|---|----|---|----|----|----|
| G | A# | D | F# | A | C | E | G# | B | C# | D# | F |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |



Prep Work: Writing a Tone Row

Atonal Composition

Let's check how you did writing down the chromatic patterns.

Pattern 1.

| | | | | | | | | | | | |
|---|----|---|---|----|----|---|---|---|----|----|----|
| D | F# | G | C | D# | G# | A | E | B | A# | F | C# |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |



Pattern 2.

| | | | | | | | | | | | |
|---|----|---|----|---|---|---|----|---|----|----|----|
| G | A# | D | F# | A | C | E | G# | B | C# | D# | F |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |



This is how atonal composers such as Schoenberg and Berg made 12 Tone Rows for their compositions.

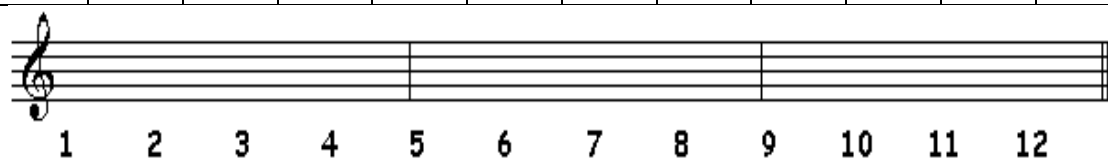
The main **RULE** for writing a 12 Tone row is:

'You use all 12 notes of the chromatic scale but only once'.

Create your own 12 Tone Row. Write the note name above the number.

Hint! You may want to 'tick' a note off from the chromatic scale after you have used it.

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|----|----|----|
| | | | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |



Prep Work: Developing a Tone Row 1 Atonal Composition

'Having gone forward, you can now go back'...

By now you should have written a 12 Tone Row. You can extend this by playing the row backwards when you get to the 12th note.

This is called 'Retrograde'.

If you were to write out Pattern 1 and add it's **Retrograde** version
It would look like this :

D F# G C D# G# A E B A# F C#
 1 2 3 4 5 6 7 8 9 10 11 12
Retrograde.
 F A# B E A G# D# C G F# D
 11 10 9 8 7 6 5 4 3 2 1

You could use the **Retrograde** idea to write a solo instrumental piece, or develop it as a **Canon** for a group of instruments. E.g.
(Instruments are written at Concert Pitch).

Flute
 1 2 3 4 5 6 7 8 9 10 11 12
 Alto Saxophone
 1 2 3 4 5 6 7
 Trumpet in B \flat
 1 2 3
 Tuba
 1 2 3
 Fl1
 11 10 9 8 7 6 5 4 3 2 1
 A. Sax
 8 9 10 11 12 11 10 9 8 7 6 5 4 3 2
 Tpt
 4 5 6 7 8 9 10 11 12 11 10 9 8 7 6 5 4 3 2
 Tba
 1 2 3 4 5 6 7 8 9 10 11 12

Prep Work: Developing a Tone Row 2 Atonal Composition

One characteristic of atonal music is its unpredictable rhythm. A way composers achieved this was to use unusual time signatures. These time signatures give the effect of the beats being uneven, almost as if you are riding a bike with egg shaped wheels!

These are some examples:

| | | | |
|---------------|-------------|---------------|-------------|
| 7 (Seven) | 7 (Seven) | 5 (Five) | 5 (Five) |
| 4 (Crotchets) | 8 (Quavers) | 4 (Crotchets) | 8 (Quavers) |

A good rhythmic effect is to change time signature every few bars, this avoids any regular rhythmic pattern being established.

Example 1. (This could be played on a flute.)

1 2 3 4 5 6 7 8 9 10 11 12 11 10 9 8 7 6 5 4 3 2 1

Notice the Retrograde version of the row!

Example 2. (Look carefully at the time signatures!)

1 2 3 4 5 6 7 8 9 10 11 12 11 10 9 8 7 6 5 4 3 2 1

The time signatures are based on divisions of five!

When you are writing a 12 Tone Melody, make sure you check that the rhythms add up.

If you are using notation software it can check this for you.

Hint! Rests are very useful as they break up the melody and also gives wind and brass players a chance to **breathe**.

Prep Work: Writing for Instruments Atonal Composition

Here are some 'extended' instrumental techniques that can be used to make your piece sound Abstract.

Woodwind.



The flute is a good instrument to write for. It is very agile and has a wide range. It can play wide jumps and 'Trills' can be a good effect for creating 'nightmare' Bird Song.

Brass.

Musical notation for Trumpet in Bb and Trumpet (Tpt). The piece is in 4/4 time. The Trumpet in Bb part starts with a *mp* (mezzo-piano) dynamic and is marked 'Mute'. The first measure has a half note G4 with a slur. The second measure has a half note A4 with a slur. The third measure has a half note B4 with a slur. The fourth measure has a half note C5 with a slur. The fifth measure has a half note D5 with a slur. The sixth measure has a half note E5 with a slur. The seventh measure has a half note F5 with a slur. The eighth measure has a half note G5 with a slur. The piece ends with a double bar line. The Tpt part starts with a *ff* (fortissimo) dynamic and is marked 'Open'. The first measure has a half note G4 with a slur. The second measure has a half note A4 with a slur. The third measure has a half note B4 with a slur. The fourth measure has a half note C5 with a slur. The fifth measure has a half note D5 with a slur. The sixth measure has a half note E5 with a slur. The seventh measure has a half note F5 with a slur. The eighth measure has a half note G5 with a slur. The piece ends with a double bar line.

Trumpets like playing Fanfares! An atonal fanfare could sound demonic. Brass instruments can be muted makes the sound harsh and 'metallic'. You can contrast sections of your piece with Muted and Open sections...remember to allow time for the player to take the mute out.

Wind & Brass players can 'flutter tongue', which distorts the sound. This is marked as '*flz*'.

String.

Musical notation for Violin. The piece is in 4/4 time. It starts with a *pizz* (pizzicato) dynamic. The first measure has a half note G4 with a slur. The second measure has a half note A4 with a slur. The third measure has a half note B4 with a slur. The fourth measure has a half note C5 with a slur. The fifth measure has a half note D5 with a slur. The sixth measure has a half note E5 with a slur. The seventh measure has a half note F5 with a slur. The eighth measure has a half note G5 with a slur. The piece ends with a double bar line.

String players can change from bowed to pizzicato quite quickly; this can add an 'acid rain' effect to the piece. Strings can also be muted which makes the sound thinner.

String players can play with the bow upside down, using the wood instead of the string. This is marked as '*Col legno*' (with the wood).

Piano.



The piano has the widest range of all instruments. It also has the advantage of being able to play more than one note at the same time. Instead of playing chords on the piano you can create 'note clusters' from the tone row. These can either accompany your melody on the piano or be used as an accompaniment for a solo instrument or voice.

The sustain pedal (the one on the right), can be used for 'blurring' the sound and for 'clashing' clusters into each other. This is marked as 'Ped_____'.

Use of Technology

Atonal Composition

Here are some ideas about the use of music technology in the creation of an atonal piece of music.

- A tone row can be sampled and 'Copy and Pasted' to create a 12 Tone Canon.
- Audio effects can be added to the performance of a composition. For example delay effects at different settings can transform an atonal trumpet composition.
- Combining a sequenced backing track with a 'live' performance could be an interesting way of introducing 'electro-acoustic music.