Serialism is a twentieth century method of composition — one of the main composers who developed and used this system was Arnold Schoenberg (1874-1951). He invented the 12-tone system in the 1920s.

**The 12-Tone System Arranges Notes in a Certain Order**

1) To use the 12-tone system, start by arranging the 12 chromatic notes of an octave into a set order (any order you like), written out horizontally — this is called a tone row.

2) Now rearrange the prime order. There are a few different ways of doing this — the first is to play the notes in reverse order (or retrograde).

3) Take the prime order again and turn the intervals between the notes upside down — this is known as an inversion. E.g. if the prime order goes up a semitone, in the inversion you go down a semitone.

4) For the last type of arrangement, take your inversion and play the notes in reverse order to give a retrograde inversion.

5) These four different tone rows can be transposed — each one can start on any of the 12 different notes. This gives you 48 different tone rows to use in your composition (see below).

6) As it uses all the notes of a chromatic scale, this music is not written in any key — it's atonal.

**Use the Tone Rows as the Building Blocks of the Piece**

1) Pick any tone row — the notes can be played in the bass line or melody and in any octave.

2) Once a row has been started, you have to use all the notes in it (i.e. you can't just use half a row). However, rows can be passed between parts and can overlap.

3) Notes can be combined to make motifs — memorable bits of melody that reappear through the piece.

4) Groups of notes can be piled up to make chords. Notes that were next to each other in the original rows would be played all at once by different instruments. This is called verticalisation — notes that were written out horizontally in the rows are written out vertically in the score.

5) The prime order could be designed to create decent-sounding chords with triads, or to create cluster chords with notes really close together.

6) Serialist music is quite complicated to write, so most pieces are only for small groups of instruments.

"Moses und Aron" by Schoenberg and Alban Berg's Violin Concerto are good examples of serialist pieces.

Not to be confused with cerealism — eating your breakfast in order...

Although this page is all about ordering the notes, serialism can order other elements too — such as metres, dynamics or rhythms. Total serialism, which came a bit later, is when every aspect of a piece is ordered.