

Students' guide: Area of study 1 (The Western classical tradition 1650-1910)

This resource gives students a breakdown of Haydn's Symphony 101 in D major 'The Clock' movt. 2. It also offers guidance on the Classical orchestra and transposing instruments.

Franz Josef Haydn (1732-1809)

Haydn is often called 'the father of the symphony' as he did so much to establish its form.

The usual pattern of a symphony became four movements:

1. an opening *allegro*
2. a slow movement, which could be in a range of forms
3. a minuet and trio
4. a final *allegro*.

The classical orchestra

The nature of the orchestra has changed a lot over the centuries. During Haydn's lifetime, it settled into what is still known as 'the Classical orchestra'. It was different because of the string section. Also, woodwind, brass and percussion instruments were in pairs.

In a typical Classical orchestra, you would expect:

- 2 flutes
- 2 oboes
- 2 clarinets
- 2 bassoons
- 2 horns
- 2 trumpets
- 2 timpani (tuned to tonic and dominant)
- 1st violins
- 2nd violins

- violas
- cellos
- double bass

Transposing instruments

Some instruments have their music written in a key other than the sounding key. This creates variation between the key signatures for these instruments when compared with the non-transposing instruments.

In this symphony, the transposing instruments are:

- Clarinets in A, sounding a minor third lower than written
- Horns in D, sounding a minor seventh lower than written
- Trumpets in D, sounding a tone higher than written.

In these cases, the note written as C sounds as either A or D as shown below:

Clarinet Written	Sounds	Horn Written	Sounds	Trumpet Written	Sounds
					

As the symphony is in D major, the clarinet in A's music will be written in F ie a minor third higher.

Guide to the movement

Movement one, three and four

The first movement opens with a slow introduction, a solemn D minor adagio, pausing, after 23 bars, on the dominant before leading to a D major presto in 6/8.

The third movement is in traditional minuet and trio form. Following the repeat of each section, the minuet is heard again. The finale is marked *vivace* (lively) and, like the minuet and trio, is in the tonic key of D major.

Movement two

This slow movement is in G major, the subdominant of D major.

The clarinet parts are notated in Bb major key (a minor third higher) while the horns are notated in G and the trumpets in C. This means that the clarinets will sound a minor third lower than written, while the horns will sound a perfect fourth lower than written. The trumpets sound as written. It's important to take this into consideration when working out the actual sounds of the notes played.

The timpani, here, are shown as being in D and G, meaning the larger timpani has been re-tuned a tone lower than it was in the first movement.

Section one of movement two

The movement opens with bassoons playing staccato (crisply, detached) and 2nd violins, cellos and double basses playing pizzicato (plucking the strings). This creates the characteristic 'ticking' effect which has given this symphony the nickname *The Clock*.

The image shows three staves of musical notation for the beginning of the movement. The top staff is for Bassoons (Bsns.) in bass clef, marked *staccato e piano*. It shows four dotted quarter notes in a 2/4 time signature. The middle staff is for Violin 2 (Vln.2) in treble clef, marked *p* and *pizz.* (pizzicato). It shows four dotted quarter notes. The bottom staff is for Violin, Cello, and Double Bass (Vlc., D.B.) in bass clef, marked *p*. It shows four dotted quarter notes.

Task

- Play this pattern using different instrumental sounds or timbres. Which sounds most like the ticking of a clock?

The main melody of this movement comes in after just one bar. It is very graceful and has a distinctive dotted rhythm.

Section two of movement two

The melody (bars 11-23) continues the dotted rhythm but alternates between quiet (*p* – piano) and loud (*f* – forte).

The pizzicato accompaniment is replaced by the 2nd violins, cellos and basses playing arco (with the bow).

The harmony is dominant with tonic for two bars before another modulation to the dominant occurs, following the additions of C# from bar 13.

The melody rises to high D, (above the treble clef), before descending, stepwise, through two octaves in bar 14, where a slower, chromatic phrase returns the tonality to the tonic.

The oboe is played for the first time in bar 16, sustaining an inverted pedal note on the dominant, D. Beneath this, the violins play in unison above the staccato cello and bass line. The cellos and basses also have the D pedal but, here, it alternates with quavers which rise in sequence from bar to bar, as shown below. The violins' melody is played in sequence, forming a four-bar phrase:

Ob.1

p Vln. I&II

p Vlc. & DB

Bars 20-23 form a balancing four-bar phrase and include some chromatic notes before the cellos and basses play C# in bar 18 to signal another modulation to the dominant.

The first flute is heard for the first time, doubling the 1st violins in an ascent through the notes of the dominant seventh, returning the tonality to the tonic for the next section.

First return of section one

What follows is a varied repetition of bars 1 – 10, extended to eleven bars.

The main differences are:

- the addition of flute 1 to double the 1st violins' melody line
- the change within the viola line. Instead of doubling the cello line it now plays triple-stopped chords
- the passing of a staccato quaver phrase from oboes to bassoons in bars 31-31
- the melodic and harmonic changes in bars 29-33.

Second return of section one

After the repeat, the second time bar takes the music down to the minor key, G minor, the tonic minor.

It is also here that the brass instruments and timpani enter for the first time in this movement and the dynamics are sustained at F. This episode is based on the third bar of the main theme, the fourth bar of the movement:

As the music moves into bar 40, it modulates to Bb major, the relative major of G minor. The example below shows an example of antiphonal writing as the 1st violins' demisemiquavers are answered by a similar phrase in 2nd violins and violas:

The harmony alternates tonic and dominant until bar 46, when chords of C minor 7 (C Eb G Bb) and E diminished 7th (E G Bb Db) lead to what is known as a 6/4 5/3 approach to a perfect cadence. It resolves in bar 48, to the chord of Bb in first inversion, as shown below, continuing to lead to a cadence.

Over staccato quavers in the bass, woodwind instruments play the chords in the dotted rhythm which has featured a lot in this episode. 1st violins introduce a new figure which is based on the notes of the underlying chord and 2nd violins with violas continue the semiquaver pattern introduced in bar 40.

The first two bars, bars 50-51, are summarised in this example:

The music gradually returns towards G minor and settles over a dominant pedal from bar 56. Alternating Ds and C#s in 1st violins in bars 61-62 lead to a return to G major and on to the second variation on the main theme.

Third return of section one

In this return, flutes and bassoons take on the 'ticking' accompaniment to the 1st violins' melody with a single phrase from the oboe in bars 66-67.

The omission of lower strings in this variation gives lightness to the piece.

There follows a complete bar's silence before Haydn takes the G on. He uses it as a pivot note to produce a change of key to Eb major, the flat submediant.

From bar 98, the 2nd violins, joined one bar later by cellos and double basses, take up the 'ticking' figure. 1st violins enter in bar 99 with the original melody, the orchestration boosted by sustained notes in the double-reed instruments and delicate decoration from flute 1.

After bar 104, the chord of Eb major leads to a German augmented sixth which, in turn, leads to a chord of D major and scalar descends through two octaves.

All woodwind and string instruments alternate D and C# for two bars. 1st violins continue alone but gradually rise through the octave before being joined by flute 1 for one further bar:



Penultimate return of section one

For one bar (111) bassoons, 2nd violins and violas play to represent the 'ticking'. They are then joined by oboes, clarinets, horns, trumpets, cellos and double basses.

Also at this point, flutes, oboe 1 and 1st violins come in with the main melody while the 2nd violins introduce a new sextuplet variation on the accompaniment figure which is made up of staccato, semiquaver broken chords of G major. This new rhythmic idea is soon incorporated into the melody, varying this return even more:



Final return of section two (from bar 121)

The music first heard from bar 11 is given this varied treatment, leading, through a similar chromatic descent (bar 125 or bar 15) to the music from bar 16, again decorated with sextuplets and with a much fuller orchestration.

Final return of section one (from bar 135)

The final statement of the main theme begins in bar 135, preceded by a rising scale, the second half of it chromatic, before the usual alternation of D and C# is also decorated (133-134):

Even the timpani emphasise the triplet rhythm on either G (tonic) or D (dominant). As the movement nears its end, the dynamics and instrumentation are reduced.

Coda (from bar 144)

There are three bars of G major, with the upper parts playing G - B - G, making a final reference to the 'ticking' accompaniment which has been such an important feature of this movement. The final two bars present three detached tonic chords played quietly.

Glossary

Acciaccatura

A crushed note, played in as short a time as possible. It is notated as a small note with a diagonal line through the stem to show that it really has no value.

Allegro

Fast, quick.

Andante

At a walking pace, a moderate speed.

Antiphonal

Where a bar or phrase is alternated between two instruments, groups of instruments or singers; from 'anti' (opposite' or 'against') and 'phonos' (voice).

Arco

With a bow (also *con arco*).

Crook

Lengths of tubing which could replace the central section of the natural horn to increase or decrease its overall length, altering the range of notes available.

Diminished seventh

A chord built up of minor thirds.

Dominant

The fifth note of the scale or the key based on the fifth note of the tonic key eg if the original key is C major, the dominant is G major.

Dominant seventh

The dominant chord plus an extra note a minor seventh above the root or first note.

Double-dotted

A dot after a note increases its duration by half the original value. The second dot adds a further half of that half.

Forte

Loud (abbreviation *f*).

German sixth

A chord built on the flattened sixth of the scale. Above this are added the third and fifth notes plus an augmented sixth.

Harmonic series

The range of notes available to a brass player by tightening or slackening the pressure of his or her lips on the mouthpiece.



Inverted pedal

When the pedal (the sustained or repeated note) is played at a higher pitch than the other parts.

Ostinato

A repeated rhythm or melodic pattern; such short melodic patterns are often referred to in pop music as 'riffs'.

Pedal

A sustained or repeated note, usually in the bass or lowest part, above which the harmony changes.

Perfect cadence

Two chords played as a progression to mark the end of a phrase. The chords are dominant to tonic, often shown by Roman numerals as *V-I*.

Piano

Quiet (abbreviation *p*).

Pizzicato

An instruction for instruments from the string family to pluck the strings (abbreviation *pizz*).

Sextuplets

Six notes played in the time usually taken by four. The feeling is of two triplets rather than pairs of quavers or semiquavers.

Staccato

An instruction to play the notes crisply, detached, which is shown in the music by placing dots above or below the notes being played.

Submediant

The sixth note of the scale where the degrees of the scale are referred to as tonic, supertonic, mediant, subdominant, dominant, submediant, leading and then tonic again.

Tonic

The first note of the scale used by the piece of music, known as the home key of the piece of music.

Vivace

Lively
Please note: instructions and instrumental names are given in Italian in most musical scores.

English	Italian singular	Italian plural
Flute	Flauto	Flauti
Oboe	Oboe	Oboi
Clarinet	Clarinetto	Clarineti
Bassoon	Fagotto	Fagotti
Horn	Corno	Corni
Trumpet	Tromba	Trombe (Do not confuse with trombone)