

Teachers' guide: Area of study 1 (The Western classical tradition 1650–1910)

This is a detailed guide to Haydn's Symphony 101 in D major 'The Clock', movt. 2. As well as breakdown of the movement itself, it includes contextual information on Haydn's life, the sonata form and the classical orchestra. There are also some suggested composition, research and performance tasks.

Contextual information

Franz Josef Haydn (1732–1809)

Life

Haydn, alongside Mozart (Wolfgang Amadeus Mozart 1756–1791), is considered to be one of the key composers of the classical period of history. From 1761, he was the *Vice-Kapellmeister* at the Esterhazy court for Hungary's wealthiest family. He composed pieces for his employers' functions and events.

Works

He is known as 'the father of the symphony' and 'the father of the string quartet' because of the number of works he wrote in both genres and the ways in which he developed them into the forms still known to this day. It is widely accepted that he wrote 104 symphonies, though some authors refer to 106. He certainly wrote over 80 string quartets. He also composed a large number of choral pieces, including settings of the mass, piano sonatas and concertos for a range of instruments, including the trumpet and the cello.

Haydn wrote that, as he spent most of his life away from the main centres of music, he had to be inventive. Throughout his life, he was regarded as having a good sense of humour and this can be witnessed in his music. For example, reputedly, Symphony 45 in F# minor, known as 'The Farewell', was written when he and his orchestra were due a holiday but, because of continuing commitments at the palace, had to stay on and play. The symphony is straightforward until the end of the final movement. At this point, a new musical idea is introduced and, desk by desk, the players blow out their candles, pick up their music and music stand, bow and leave the platform, until only one desk remains. When the music comes to its end, the remaining two players stand, bow and leave the stage. Mercifully, Prince Esterhazy had a good sense of humour, got the message, and granted the players their overdue holiday.

Another example of Haydn's inventiveness is the symphony nicknamed 'The Surprise'. Here, according to the story, a guest at the palace had remarked to Haydn that the slow

movements of his symphonies were a good opportunity to take a nap after a fine meal. Haydn decided that no one would sleep during his music and introduced a very loud chord at the end of the repeat of the first eight bars of his simple theme.

The 'London' symphonies

In recognition of his long service at Esterhazy, Haydn was granted a pension and allowed to travel. This gave him access to instrumentalists who had not previously been available for example the then new clarinet, which he used it in his 'Paris' symphonies and many of the 'London' symphonies, including 101.

In London, he was commissioned by Salomon, the impresario, to compose a set of six symphonies and then a further set, following the success of the first six. In some books, Symphony 101 will be referred to as the eleventh symphony to be written from these twelve and is also known as one of the 'Salomon' symphonies.

Symphony pattern

The established pattern for a symphony became four movements:

1. an opening *allegro*, usually in sonata form (see below)
2. a slow movement, which could be in a range of forms, including sonata form, theme and variations, ternary, even *da capo aria*
3. a minuet and trio
4. a final *allegro*, usually in sonata form or rondo form

The sonata form

The sonata form has three main sections:

1. Exposition: here the main themes are presented. There are usually two: one in the main key or tonic and one in either the dominant (from a major key) or relative major (from a minor key). The two themes also contrast in character and, invariably, in instrumentation. They are linked by a bridge passage or transition where the modulation takes place.
2. Development: here the themes, or ideas from within the themes, are developed, passing through a range of keys before returning towards the tonic for the recapitulation.
3. Recapitulation: the main themes return, though the second subject (or theme) will invariably return in the tonic key (from a major key start) or the tonic major (from a minor key start).

There are, however, many variations on this basic outline and it is the potential for endless variety that has kept this form so popular with composers. Additional sections

might include a slow introduction, a codetta (or rounding-off section to the exposition or a coda) or a longer rounding-off section after the recapitulation.

Please note: the sonata form should not to be confused with the term 'sonata', a term used for music for a solo instrument or a chamber group, for example piano sonata, violin sonata or trio sonata.

The classical orchestra

The orchestra has developing gradually and, during this period, settled largely into what is still known as the 'classical orchestra'. Its characteristics include a string section and the woodwind, brass and percussion instruments being present in pairs. Thus, a 'typical' classical orchestra includes:

- 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 gives rise to 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:



As the symphony is in D major, the clarinet in A's music will be written in F, i.e. a minor third higher. However, traditionally, the parts for the horn and trumpet are written without a key signature and accidentals are added as needed.

Similarly, the timpani, here described as being 'in D and A', are merely notated on these two pitches with no key signature given.

Unlike modern timpani, the instruments used in Haydn's time were difficult to tune and, as a result, tended to remain at the same pitches throughout the work. However, it is noticeable that Haydn requires the drum tuned to A to be re-tuned to G for the second movement, thus providing D and G, dominant and tonic.

Exploring Haydn's Symphony 101 in D major 'The Clock'

Movements 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 dance-like D major presto in 6/8.

The third movement is in traditional minuet and trio form, although the opening music is energetic and dramatically opposes loud and quiet phrases, rather than being a graceful dance melody. Each section of the minuet is repeated before the trio brings a marked contrast in style and orchestration.

Following the repeat of each section, the minuet is heard again. This is shown by the instruction 'Men. D. C' (short for *menuetto da capo*: 'go back and repeat the minuet'). Generally, this return to the minuet is played without repeats, although the Italian term for this (*senza replica*) is rarely used in scores.

The finale is marked *vivace* and, like the minuet and trio, is in the tonic key of D major. It is in sonata rondo form, which Haydn developed by combining elements of sonata form with rondo form.

Movement two

Key

This slow movement is in G major, the subdominant of D major. Notice that the clarinet parts are notated in the key of Bb major (a minor third higher) while the horns and trumpets become horns in G and trumpets in C respectively. This means that the music notated for the clarinets will sound a minor third lower than written. The horns will sound a perfect fourth lower than written, while the trumpets sound as written. It is very important to take this into consideration when working out the actual sounds of the notes they play.

Tuning

The key of brass instruments was changed with crooks. On a 'natural' horn or trumpet, the sounding pitch or harmonic series was governed by the overall length of the tubing and the player changed the pitch by altering the pressure of his or her lips. Additionally, in the case of the horn, the player could insert his or her hand into the bell, thus altering the sounding length. However, this method also affected the tone produced.

The timpani are now designated as being 'in D and G', so the larger timpani have been retuned a tone lower. This would have taken place discreetly before its entry in this second movement, as would the changing of the crooks on the horns and trumpets.

Section one (bars 1 to 11)

The overall form of the movement revolves around the two main musical sections, starting in bars 1 and 11 respectively. In particular, the opening melody, first heard in bars 2-10 returns on several occasions and, on each occasion, it is varied.

It opens with bassoons playing *staccato* and 2nd violins, cellos and double basses playing *pizzicato* to create the characteristic ticking effect which gave rise to this symphony's nickname. It is worth bearing in mind that the nicknames we know today will not have been applied to the works by Haydn. They will come from a chance remark, possibly in a review, or will have been given to the work (by the publisher, for example Salomon), to help set it apart and encourage concert-goers to come to hear it.

This ticking effect is summarised below, the 'tick-tock' sound being easy to hear with this combination of timbres:

Bsns. *staccato e piano*

Vln.2 *p* pizz.

Vlc., D.B. *p*

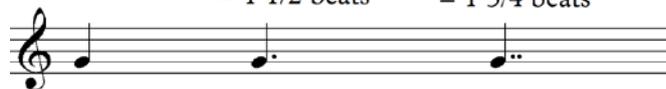
The ticking effect is created by combining the crisp sound of the *pizzicato* in the strings with *staccato* in the bassoons and the alternation of the pitches, B and D as well as G and B.

The main melody enters after just one bar and its opening note is double-dotted. It is very graceful and has a distinctive dotted rhythm, reflecting the characteristic detached nature of the accompaniment.

In this movement, because the overall tempo is *andante*, the main pulse is a crotchet and the melody uses shorter note values, beginning with a double-dotted quaver, the beat completed by a demisemiquaver. The melody also features the use of *staccato* and,

on three occasions, an *acciaccatura*, where the extra note is played in as short a time as possible.

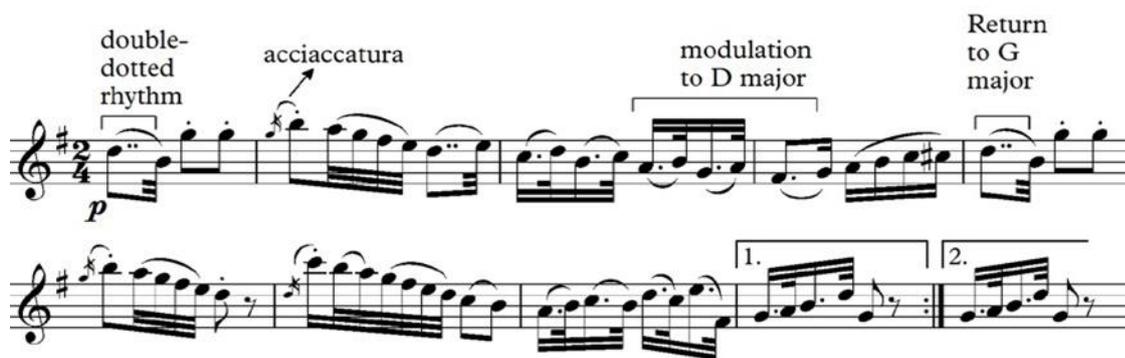
1 beat	1 + 1/2 beats = 1 1/2 beats	1 + 1/2 + 1/4 beats = 1 3/4 beats
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1/2 beat	1/2 + 1/4 beats = 3/4s of a beat	1/2 + 1/4 + 1/8 = 7/8s of a beat
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The melody falls into two phrases, the first modulating to the dominant D major before continuing with a balancing phrase which starts with the same two bars as the first phrase and then leads to a perfect cadence in G major. Notice that the two phrases are not equal in length. The first is four bars but the second is five: the extra bar is inserted after the restatement of the opening two bars. It gives an impression of a sequential extension of the second bar.



Section two of movement two (bars 11 to 23)

The melody (bars 11-23) continues the dotted rhythm but alternates between *piano* and *forte*. The *pizzicato* accompaniment is replaced by the 2nd violins, cellos and basses playing *arco* though still *staccato*. The harmony is dominant/ 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. Thus, Haydn has written another five-bar phrase, this time consisting of three bars of dotted rhythms, one of descending scales and one of a much slower, chromatic descent.

The oboe enters 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 summarised below. The violins' rhythm is derived from the first bar of the opening melody and its melody is also 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 used as decoration 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 (bars 24-33) bars 24 - 34a

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 crotchet chords on the first beat of the bar
- 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 (bars 34-62) (bars 34b - 62)

After the repeat, the second time bar takes the music down to G minor, the tonic minor. It is also at this point 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. There is 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, though it resolves, in bar 48, to the chord of Bb in first inversion. This is shown in outline below and continues, in a typically light-hearted Haydnesque manner, leading to a cadence, but uses the first inversion chord again before finally cadencing onto the root of the chord in bar 50:

Over *staccato* quavers in the bass, woodwind instruments play the chords in the dotted rhythm which has featured extensively in this episode. Brass instruments add sustained notes of the chords, 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 next musical 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 (bars 63 to 72)

In this delightfully varied return, flutes and bassoons take on the ticking accompaniment to the 1st violins' melody with the addition of a single phrase from the oboe in bars 66–67. The omission of the lower strings adds to the lightness of this variation.

Return of section two and then section one (bars 73–110)

The remainder of the opening 34 bars return in this scoring, ending in bar 96.

There follows a complete bar's silence before Haydn takes the G on which the previous melody has ended and uses it as a pivot note to effect a change of key to Eb major, the flat submediant, for this next return and variation of section 1.

From bar 98, the 2nd violins, joined one bar later by cellos and double basses, take up the ticking figure in this new key. 1st violins enter in bar 99 with the original melody, the orchestration augmented by sustained notes in the double-reed instruments (oboes and bassoons) and delicate decoration from flute 1.

However, after bar 104, the chord of Eb major leads to a chromatic chord (a German augmented sixth) which leads to a chord of D major and scalic descends through two octaves, as first heard in bar 14, though now with an ascending scale played by flutes and oboes in the second half of the bar.

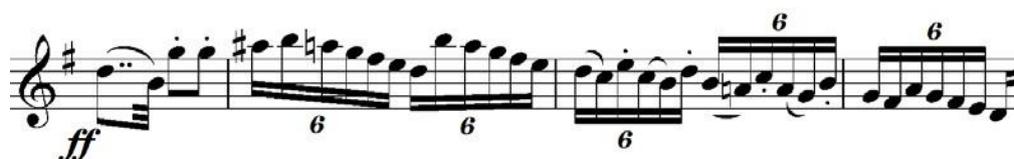
All woodwind and string instruments alternate D and C# for two bars. 1st violins continue alone but gradually rise through the octave before being joined by flute 1 for one further bar:



Penultimate return of section one (bar 111–120)

At bar 111, bassoons, 2nd violins and violas join in with the ticking motif, joined, after one bar, by oboe 2, clarinets, horns, trumpets, cellos and double basses. Also at this point, flutes, oboe 1 and 1st violins enter with the main melody while the 2nd violins introduce a new sextuplet variation on the accompaniment figure, comprising *staccato*, semiquaver broken chords of G major.

This new rhythmic idea is soon incorporated into the melody, thus varying this return even more:



If possible, play the original version from bars 2–5 and then play this. This section provides another climax within this movement.

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.

Suggested tasks

Composition

- Write a short melody which modulates halfway through and then returns to the tonic key
- Write a short melody which incorporates a strong rhythmic feature, such as dotted rhythms.
- Either choose an existing melody or write one of your own and then, with the help of your teacher, explore ways in which the melody can be varied.

These might include:

- decorating the melody by adding notes between the existing notes of the melody
- taking one phrase and extending it by use of sequence
- moving it into the tonic or relative minor key, (or major, if the original melody is in a minor key)
- inverting the melody.

Research

You should also aim to listen to examples of variations written by other composers.

These might include:

- 'Ah! Je dirais vous, maman' by Mozart
- 'The Harmonious Blacksmith' by Handel
- 'Variations on the Saint Anthony Chorale' by Brahms
- the second movement of Haydn's 'Surprise' Symphony 94 in G major (another of the 'London' symphonies)
- Elgar's 'Enigma Variations'.

'Ah! Je dirais vous, maman' is better known as the nursery rhyme 'Twinkle, twinkle, little star', notated in 2/4 by Mozart as here:

The image shows a piano accompaniment for the nursery rhyme 'Twinkle, twinkle, little star' by Mozart. It is written in 2/4 time and consists of two systems of music. The first system contains measures 2 through 12, and the second system contains measures 13 through 24. The melody is simple and repetitive, with a clear 2/4 time signature.

The opening section of the melody from Haydn's 'Surprise' symphony is as follows:

The image shows the opening section of the melody from Haydn's 'Surprise' symphony. It is written in 2/4 time and consists of two systems of music. The first system contains measures 2 through 8, and the second system contains measures 9 through 16. The melody is more complex than the first piece, with a dynamic range from piano (*p*) to fortissimo (*ff*).

Further research

The 19th century violinist, Paganini, wrote a famous set of variations and, in the 20th century, the Russian composer, Rachmaninov, composed his 'Rhapsody on a theme of Paganini', with Variation 18 being perhaps the best known and most played alone. To appreciate just how inventive Rachmaninov is, you need to listen to the whole set, lasting some twenty minutes.

Later in the same century, Andrew Lloyd Webber also wrote a set of variations based on the same melody from the Paganini set as did Brahms in the 19th century.

You might like to play through the first four bars of this theme, which are repeated, and try writing some variations on this melody or on either of the other two quoted above:



An alternative approach would be to base a composition on an *ostinato* figure, along the lines of the 'tick-tock' pattern found in this movement.

Performing

Two arrangements of the opening section of this movement are provided.

The first is based on four parts, each line transposed and/or adapted where necessary to accommodate transposing instruments.

The second, also based around just four main lines, takes Haydn's music and remains as true to its scoring as possible, whilst also allowing for the fact that schools will have other instruments at their disposal within a GCSE group. Here instruments are used to highlight particular phrases, to reflect changes of dynamics and/or to permit changes of timbre.

Students might also wish, where possible, to take a section of the movement, perhaps just the first ten bars, and arrange it for the specific instrumental forces available within the GCSE group. This could also include voices, singing either wordlessly or to specially-written lyrics. Any compositions should be written with a view to live performance, either by the composer or by a group of instrumentalists or vocalists, hopefully drawn from within the GCSE music group.

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	Clarinetti

Bassoon	Fagotto	Fagotti
Horn	Corno	Corni
Trumpet	Tromba	Trombe (Do not confuse with trombone)