



ROYAL
COLLEGE
OF MUSIC
London

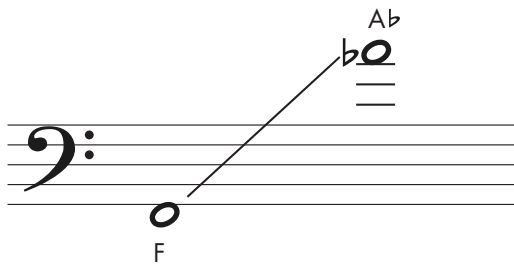
RCM Sparks Springboard Composition Course: Instrument guidance notes for composers

This resource is made up of guidance notes provided for young composers participating in our composition courses. Although it is not fully formed, we hope it may be of some help to others who may be composing at home or school.

RCM Sparks is the Royal College of Music's learning and participation programme.
To find out more and get involved visit www.rcm.ac.uk/sparks

Tenor Trombone

Range: A1 to E2 (written range)



The trombone and trumpet families are very similar in terms of sound except for the fact that the trombone operates in a lower register and uses a slide mechanism.

The shape of the instrument gives it its brassy character. Its tone is powerful and resonant and it is capable of extreme dynamics, cutting through a full symphony orchestra easily in the higher register.

The middle register is more mellow and rich whereas the lower register gets weaker and flabby as you descend.

Multiple mutes are available: straight mute, harmon mute and cup mute are most common.

Be careful with demanding continuous playing in the high or extreme low registers and try to avoid fast big leaps.

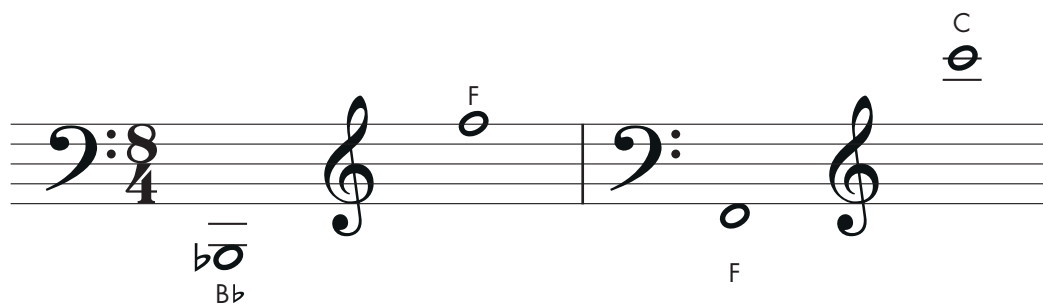
Very fast passages at the bottom of the register are almost impossible to play. It is not a transposing instrument and should be written at sounding pitch in either the bass clef, or treble clef when writing high on the instrument.

Hear it in:

Stravinsky's *A Soldier's Tale*
Bartok's *The Miraculous Mandarin*
Berio's *Sequenza*
Edgard Varèse's *Octandre*

French Horn

Range: B \flat 1 to F2 (sounding pitch) | (written pitch)



The French horn is the most smooth and mellow of all the brass instruments. It can play gently and quietly as well as sounding noble and heroic.

It's easiest to play and sounds most characteristic in the upper two-thirds of its range. Parts are written in treble clef except for when writing in bass clef for the lowest register, where the sound is weaker and more flabby.

The horn is a transposing instrument. Its sounds five notes lower than written. (Write a middle C and it will sound F below).

The sound can be changed by using a mute and by "stopping". This is where the player completely blocks the airway with the hand in the bell so that the sound becomes buzzy, nasal and distant. It's a great effect!

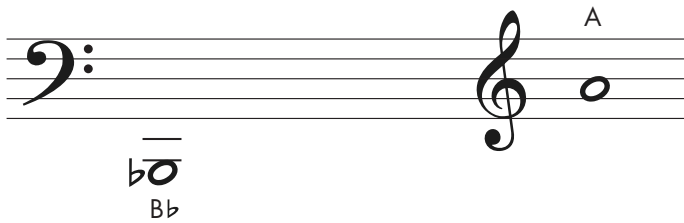
As with all brass instruments, players need time to breathe and to rest from passages of sustained playing. Avoid fast passage with big leaps!

Hear it in:

Stravinsky's *The Rite of Spring*
Any Symphony by Mahler
Mozart's *Horn Concerto no. 4*
Richard Strauss *Horn Concerto no. 1 or 2*

Bassoon

Range: Bb1 to A



Parts for the Bassoon are normally written in the bass clef, except for the higher register when the treble clef becomes easier to read.

It has a large register with an even sound throughout and produces a veiled, velvet and melancholy character. In the very lowest regions of the instrument it's hard to play very quietly. Higher notes sound increasing unearthly and mysterious.

The bassoon is an agile instrument and traditionally it has taken on the role of playing bass lines, been used to exploit a comedic character and has also been used to express a lyrical, lonely and melancholy mood.

It's not a loud instrument so take care not to obscure it when writing ensemble and orchestral music.

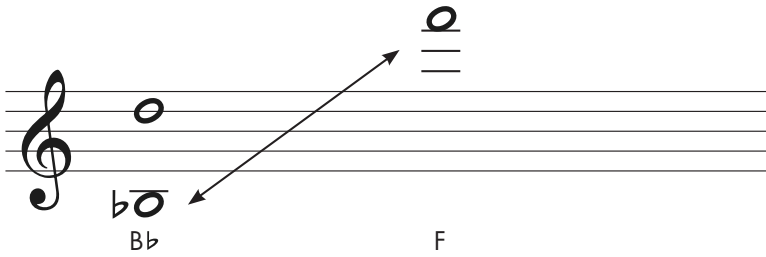
The Bassoon is not a transposing instrument, so write the notes you want to hear!

Hear it in:

Stravinsky's Octet
Tchaikovsky's Symphony 4-6
Ravel's Piano Concerto
Beethoven's Symphony 4-6
Bartok's Concerto For Orchestra

Oboe

Oboe:

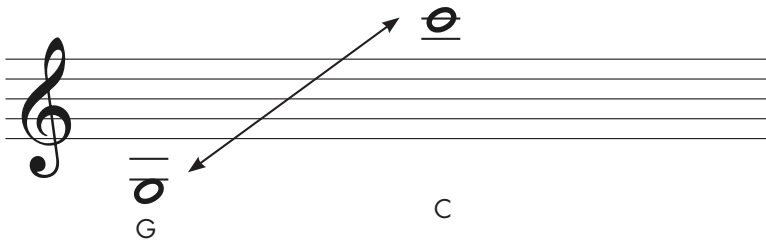


The oboe can achieve smooth melodies across the range, but is also suits short and spiky writing.

It can't play very quietly in the low register.

It can play multiphonics (many sounds heard at once).

Trumpet



The trumpet has a bright sound in the upper register and thicker sound in the very low register.

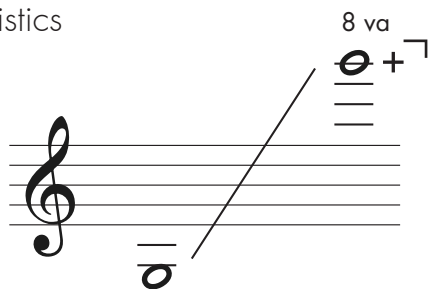
The trumpet can be lyrical as well as being short, incisive and loud.

The trumpet can play with a mute which makes the sound thinner and more metallic.

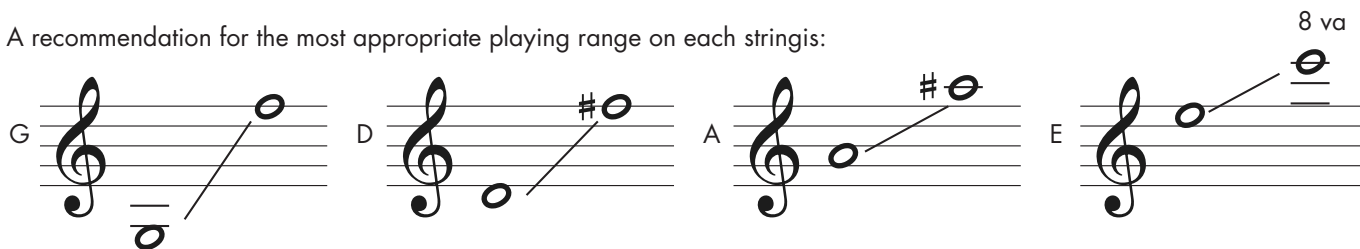
Violin

Range and Characteristics

The range of the violin is:



A recommendation for the most appropriate playing range on each string is:



Playing Techniques

Arco means to play with the bow

But where can you play?

-Sul pont. (on the bridge) creating a sharp, acidic sound

-Sul tasto (on the fingerboard) creating a soft, sweet sound

Pizzicato – plucking

Con sord. – with the mute, creating a muffled, darker sound)

Two strings can be played at once

One string can be played as a drone (cello, double bass)

Natural and **artificial harmonics** are possible

The character of each string varies hugely. The G string is full, rich, dark, strong tone; the D string is softer and mellow; the A string is brighter, more penetrating yet rounded in sound; the E string is very bright and projects well

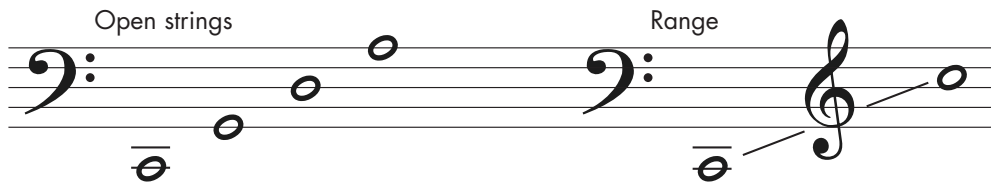
Hear it in: .

Vaughan Williams' The Lark Ascending. This is a good example of the beautiful tone of the E string.

The opening of Ravel's Tzigane. This is a good example of the rich tone of the G string.

Cello

Range: C2 – F6



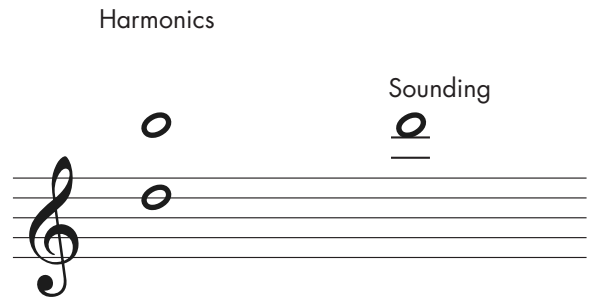
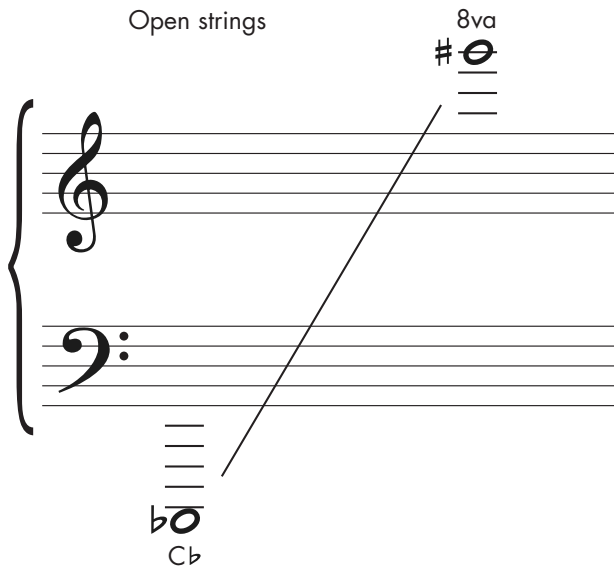
Please refer to Violin Playing Techniques

Hear it in:

Bach Cello Suites

Harp

Range: C2 – F6



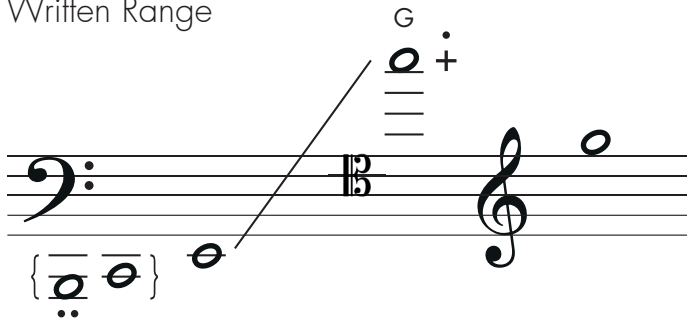
The modern harp has 47 strings, which are plucked to produce a sound. It also has 7 pedals which increase the range of the notes played.

The harp is typically soft and angelic but can also be played loudly and rhythmically. It can play glissandi, chords or single notes.

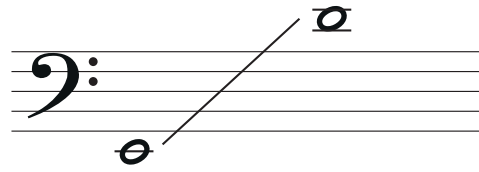
Double Bass

Range: E to D (sounds one octave lower than written)

Written Range



Practical (written)



Please refer to Violin Playing Techniques

The bass is comprised of four strings. The open (unfingered) strings are, from lowest to highest: E (IV), A (III), D (II) and G (I). Unlike the violin, viola and cello, the contrabass' strings are tuned a perfect 4th apart.

The sound characteristics of the double bass are heavy, weighty, dark, wafting, somber, earthy, resonant, mighty, menacing, violent, mellow....

Hear it in:

Solo from Mahler: Symphony No.1 (3rd Movement). This demonstrates the mellow, sombre tone of the instrument.