

## Instruments of the Orchestra and Voices

You don't have to play several instruments or sing in a choir to easily answer questions that will be set in this part of the exam. You will need to know the names of instruments, the clefs they use, instrument family groups and the basic way by which they produce their sound. All of this will be covered on this sheet. You might ask your friends about the instruments they play to help you prepare too.

All sounds are caused by vibrations. If the vibrations are quick, the sound produced will be a high one. If the vibrations are gentle, a soft sound will be heard. Instruments have been designed so that the sound that is made is magnified (resonated) by the actual body of the instrument.

The **Woodwind Family** creates their sound in three different ways. With a piccolo and flute, the player makes a sound by blowing across the hole in the mouthpiece; a clarinet produces a sound by a single reed; oboes, cors anglais and bassoons by a double reed.

Most instruments in the **Brass Family** use valves to help produce different pitches, though the trombone uses a slide.

The **Percussion Family** is generally divided in two ways:

Instruments with *Definite pitch* (can play identifiably different notes) - xylophone (wooden strips), glockenspiel (metal strips), marimba, tubular bells, timpani and celesta.

And instruments with *Indefinite pitch* (cannot play distinguishable notes) - cymbals, side drum, tambourine, triangle, maracas, cabasa, claves and castanets.

Family	Brass	String	Woodwind	Voice
Highest ↑ ↓ Lowest	Trumpet	Violin	Piccolo	Soprano
	Horn <sup>Trans</sup>	Viola	Flute	Mezzo-soprano
	Trombone	'Cello	Oboe	Alto (Contralto)
	Tuba	Double bass	Clarinet <sup>Trans</sup>	Tenor
			Cor Anglais <sup>Trans</sup>	Baritone
			Bassoon	Bass

<sup>Trans</sup>: Transposing Instrument

Clefs used by various instruments:

Treble: violin, flute, oboe, clarinet, horn (sometimes bass clef), trumpet

Alto: viola (sometimes treble clef)

Tenor: 'cello (often bass clef), bassoon (often bass clef), tenor trombone (often bass clef)

Bass: double bass, tuba

A question that often occurs on an examination paper involves looking at an extract of music and deciding on what instrument might be able to play the selected bars at the same pitch. The above Table and Clef Guide will help you choose the most likely instrument. Remember though, that the lowest note a flute can play is Middle C.

Make sure you are familiar with all of the Instrumental Performance Directions. This is another pdf document listed under Grade 4.

The Grade 5 questions only require knowledge of "standard orchestral instruments." This means that instruments such as saxophones, recorders, guitar and piano would never be a satisfactory answer.

For your own interest, you may want to go a little deeper. The best two Apps I've seen are *The Young Person's Guide to the Orchestra* (based on Britten's brilliant work of the same name, released in June 2013, 888 MB and free) and *The Orchestra* (several wonderful symphonic pieces, released in April 2013, 1.96 GB and £9.99). Both of these Apps will give you lots of information and audio about individual instruments. You could also read John Ho-sier's *Instruments of the Orchestra* (with CD by Yehudi Menuhin) [this seems dated now but is interesting] or study Prokofiev's *Peter and the Wolf* and Saint-Saëns' *The Carnival of the Animals*. Let me know if there is anything you don't understand here.