

Instrument Families



Musical instruments are grouped into **families** based on how they make sounds.

In an orchestra, musicians sit together in these family groupings:

Strings
Woodwinds
Brass
Percussion



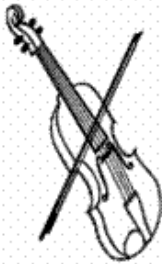
S3-C1: Listening to, analyzing, and describing music.

- PO 2: Identifying instruments, Western and non-western, by family (e.g., woodwind, percussion, brass, strings)
- PO 2: identifying a variety of band, orchestra, and classroom instruments

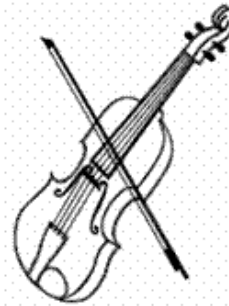
The Orchestra—Instruments

The String Family

Most of the string instruments are all shaped alike, but come in different sizes. They have carved, hollow, wooden bodies with four strings running from top to bottom. These strings are played with a **bow**, which is a wooden rod strung with the hair from a horse's tail. The bow is held in the musician's hand and pulled across the strings to make the strings vibrate. In addition to bowing a string instrument, string players sometimes **pluck** the strings with their fingers. This technique is called **pizzicato**.

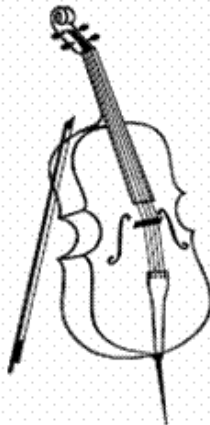


The **Violin** is the highest-sounding and smallest string instrument. The Violin is played with both hands and is held under the player's chin. There are more violins in the orchestra than any other instrument.

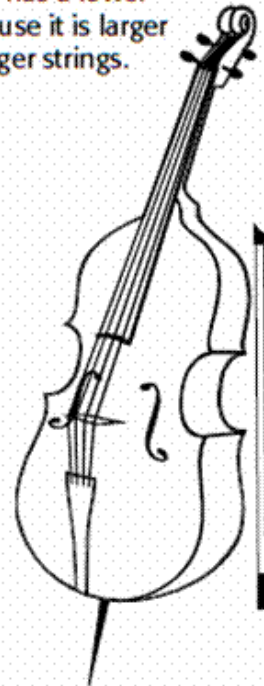


The **Viola** looks much like a violin, but has a lower sound because it is larger and has longer strings.

The **Cello**, or **Violoncello**, is much larger than a violin or viola and must be played sitting down with the instrument between the knees. It has longer strings and a lower sound than the viola.



The **Double Bass** has the lowest sound of any string instrument. It is around 6 feet tall, and bass players either stand to play or sit on a tall stool.



The **Harp** also belongs to the string family. Although it may not look like the other strings, it has 47 strings. The strings are plucked or strummed by the fingers while the feet adjust 7 pedals that moves pitches up or down.



The Orchestra—Instruments

The Woodwind Family

Woodwind instruments produce sound when air is blown across a hole in the instrument or over a reed made of wood. Originally, all woodwinds were made of wood, hence the name. The player uses his or her fingers to cover holes or keys in the instrument. These help the player produce higher or lower sounds.



The **Flute** is one of the highest-sounding instruments in the woodwind family. It is held sideways, and air is blown across a small hole to produce its sound. The flute is made of metal, usually silver.

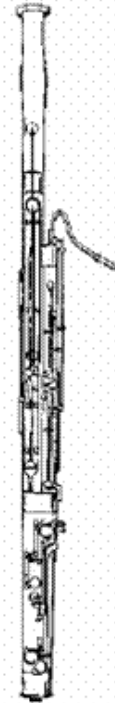
The **Clarinet** has a single reed that is attached to the mouthpiece. The air causes the reed to vibrate against the mouthpiece to produce a sound. Clarinets are normally made of wood.



The **Oboe** is a **Double Reed** instrument. A double reed consists of two slivers of wood joined together and inserted into the top of the instrument. Air causes the reeds to vibrate against each other. The oboe is also made of wood.



The **Bassoon** is also a wooden double reed instrument. It is the lowest-sounding instrument in the woodwind family. It is so long it is bent back on itself so that the bassoon player can hold it. It is also the only wind instrument that requires the musician to use his or her thumbs to play certain notes!



The auxiliary instruments include **piccolo**, **contrabassoon**, **bass clarinet** and **English horn**. These instruments are similar to the other instruments in the woodwind family.



The Orchestra—Instruments

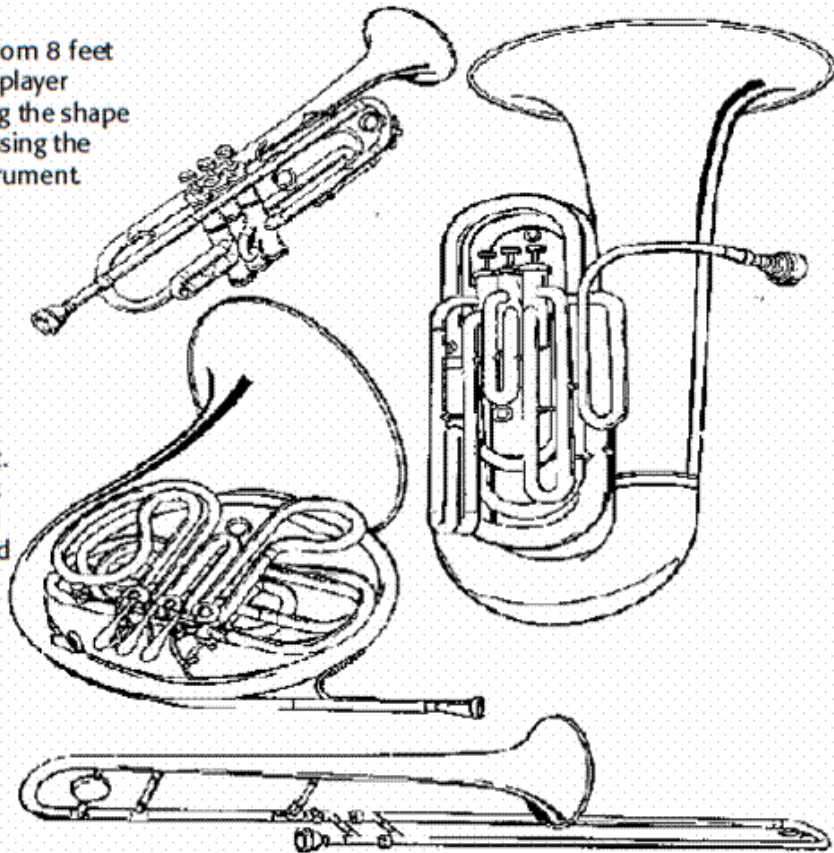
The Brass Family

The instruments of the brass family are made of tubes of brass and other metals that are rolled and shaped into a variety of forms. Each brass instrument has a cup-shaped mouthpiece on one end and a bell-shaped opening at the other end. Brass players vibrate their lips against the mouthpiece to produce the sound. This is called "buzzing."

The **Tuba** is the lowest-sounding brass instrument. It has 18 feet tubing, three or four valves and a very large bell.

The **Trumpet** is made from 8 feet of tubing. The trumpet player changes pitch by altering the shape of his or her lips or pressing the three valves on the instrument.

The **Horn** was once an instrument without valves used for the hunt. Today's French horn has 16 feet of tubing curved into a circular shape, and is made with valves.



The **Trombone** does not normally have valves to help change the pitches. It has a slide that serves to lengthen and shorten the instrument.



The Orchestra—Instruments

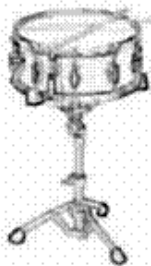
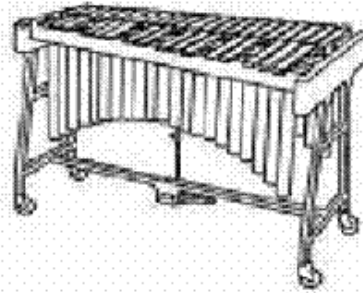
The Percussion Family

The percussion family consists of many different instruments. There are instruments to shake, rattle, beat with a mallet, rub together, or hit with a stick. Some percussion instruments can be tuned to a definite pitch while others are indefinite and do not change pitch. Anything from a brake drum on a car to coconut shells could qualify as percussion instruments! A percussionist may be asked to play hundreds of instruments during his or her career. The instruments listed below are commonly found in the orchestra.



The **Timpani**, or kettledrums, are important members of the percussion section. Shaped like copper kettles, they can be tuned and are usually played by one person in groups of two to five.

The **Snare Drum** gets its unique sound from the metal snares attached to the bottom of the drum. When the snare drum is struck, the snares rattle against the drum and produce a distinctively sharp, crisp sound.



The **Vibraphone** is considered a “keyboard” instrument because it has metal bars that resemble the keys of a piano. All keyboard instruments are played with mallets. Other keyboard instruments commonly found in the orchestra include bells, **Xylophone**, and the **Marimba**.

Some other smaller percussion instruments used in the orchestra include:

The **Tambourine**: a small hand-held instrument whose sound is made by metal jingles suspended on a wooden rim.

The **Triangle**: a small metal rod that has been bent into the shape of a triangle. It is played with a small metal stick called a beater to make a bright metallic ringing sound.

