

Instruments





- The number of instruments in a symphony orchestra can range from 80-110.

STRING FAMILY



violin



viola



cello

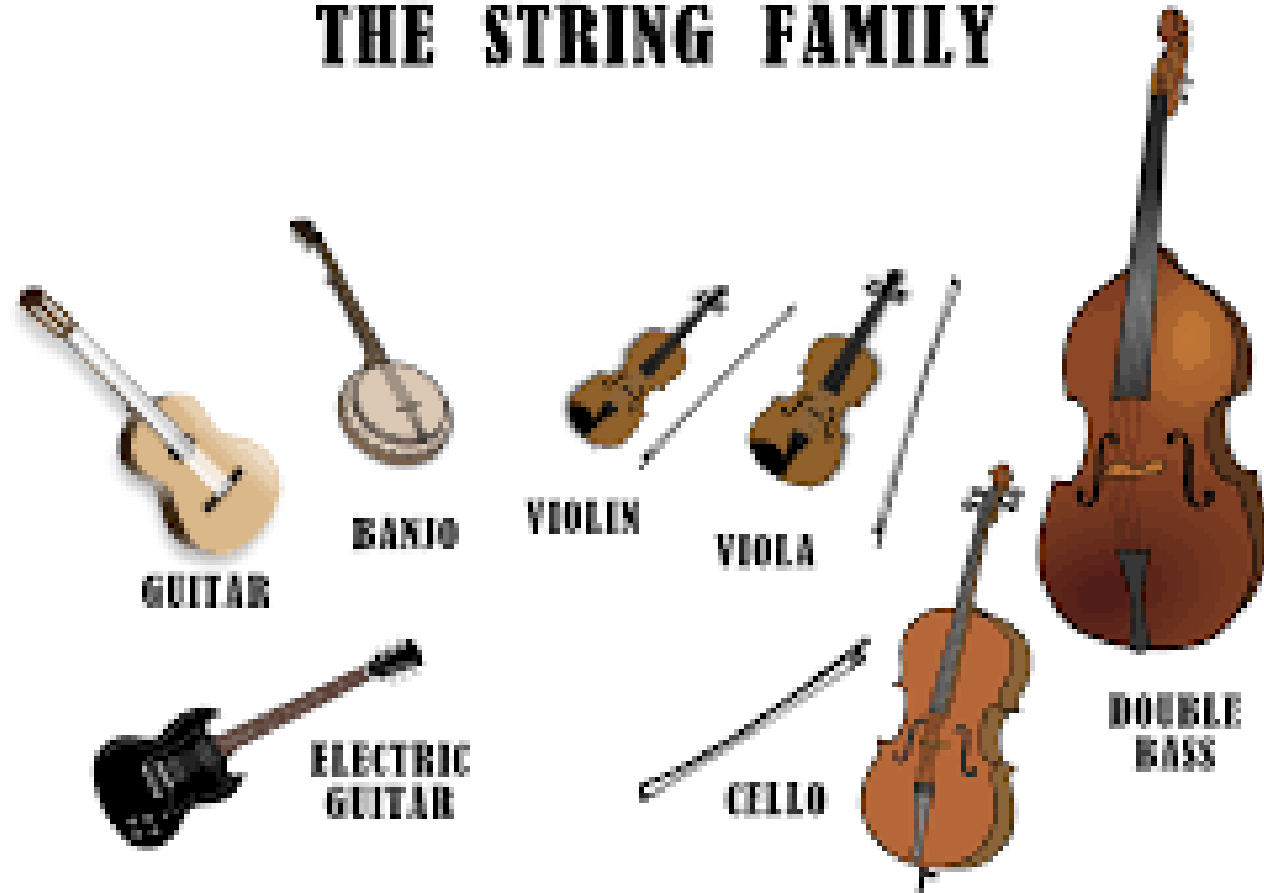


double bass



harp

THE STRING FAMILY



- String instruments are played by vibrating strings. The violin, viola, violoncello, and double bass (bass viol) are all string instruments.

Violin



- The violin has four strings.
- The violin is the most perfect musical instrument known. It can produce all possible emotions from the deepest pathos to the wildest joy.
- Sometimes the bow of the violin is discarded and the instrument is plucked like a guitar. This is called “pizzicato”.
- Most expensive violin to date is Stradivarius (1721) \$16 milion

Viola



- The viola has four strings. It is played in the same manner.
- It is larger in size and has a range lower in sound.
- Its tone color is more somber and melancholy or gloom.



Cello violincello

- The cello has four strings, the two lower ones are wired. It is played
- It is larger in size and has a range lower in sound.
- A musician must rest the instrument on the floor and stand beside it while playing it.



Double Bass

- The double bass has four strings. It is played in the same manner as the cello.
- It is larger in size and has a range lower in sound.
- A musician must rest the instrument on the floor and stand beside it while playing it.

Octobass

- The octobass has three strings.
- It is the largest string instrument.

Constructed in 1850 by Jean-Baptiste Vuillaume.





Harp

- The harp is a stringed instrument of very ancient origin.
- It has 47 catgut strings and 7 pedals.
- The harp has nearly the same range of the piano.

WOODWIND family



The Woodwind Family

- Woodwinds are played by blowing on a reed or across an opening. The flute, clarinet, oboe, English horn, saxophone, and bassoon are woodwinds.



Flute



Oboe



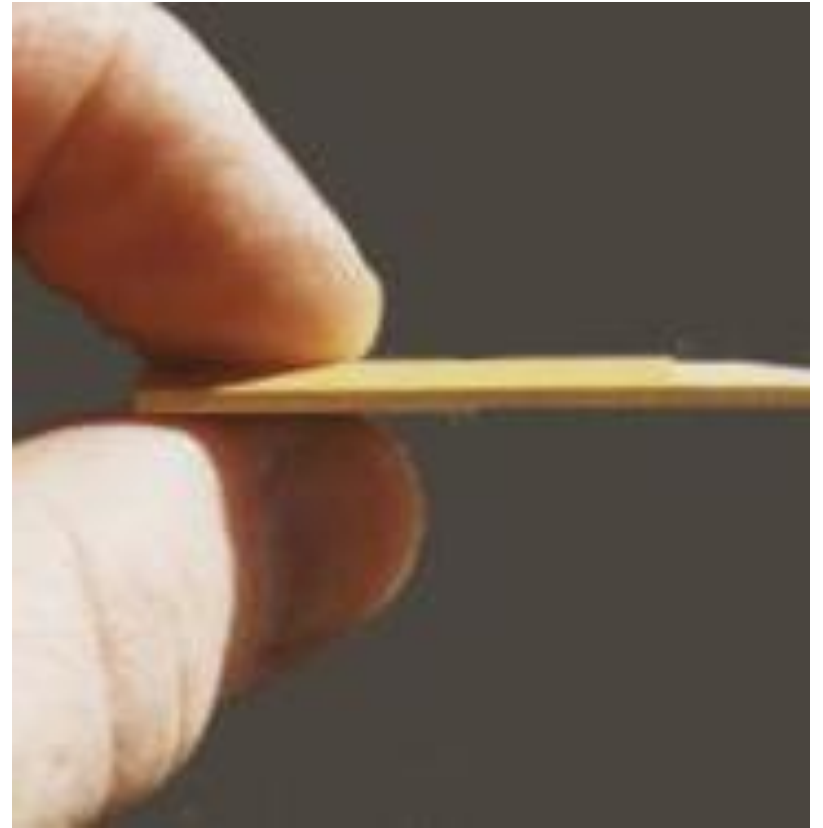
English Horn



Clarinet



Bassoon



Single reed
for clarinet



Double reed for oboe



Flute

- The flute is made of metal.
- As a solo instrument the flute is especially brilliant.
- It is played by blowing across a hole in the head of the instrument while the fingers and keys are used to open and close the holes along the tube.

Piccolo



- The piccolo is about half as large as the flute but has the same key mechanism.
- It is pitched higher.
- It is pitched higher and is used for such effects as the whistling of the wind and the shrill voice of the fife in military music.



Piccolo

Clarinet



- The clarinet is one of the most important woodwind instruments.
- It consists of a cylindrical tube with finger holes and keys, ends in a bell-shaped opening, and has a beak like mouthpiece, with single reed.

Oboe



- The oboe has been a prominent instrument.
- A double-reed.
- The lower notes are hoarse sounding and the highest ones sound forced and are screaming in quality.

English horn



- The English horn is a species of the oboe.
- A double-reed.
- The English horn is lower in tone than the oboe.

Saxophone



- Played with a single reed
- Saxophones have holes in the instrument which the player closes using a system of key mechanisms.

Bassoon

- The bassoon is a double-reed woodwind instrument of deep pitch.
- It is of the oboe family and is deepest tone among wood winds.



BRASS family



BRASS FAMILY

trumpet



French
horn



tuba



trombone



- Brass instruments such as trumpet, French horn, trombone, and tuba are played by blowing into a circular mouthpiece.



Circular mouthpiece for brass instruments

Trumpet



- The Trumpet is a brass instrument with a long, narrow tube and a rather shallow mouthpiece.

French horn



- The French horn is made of brass or silver. The long tube is twisted into several circular folds gradually increasing in diameter from the mouthpiece to the end.
- The tone is mellow and tender.

Trombone



- The trombone is a brass instrument, may be with keys or the slide.
- It doesn't have any definite steps between each note, but can slide from one tone to another.
- The trombone can be a difficult instrument to master.



Tuba

- The tuba is a brass instrument. It is played with four keys.
- It is the deepest of the saxhorns.

PERCUSSION family



PERCUSSION FAMILY



- Percussion instruments are instruments that are struck, such as the piano, the harpsichord, the clavier, drums, cymbals, and xylophone.

Tympani



- The tympani are literally copper kettles covered with drumheads. They are played with two sticks with felt covered heads.
- There are usually two in a symphony
- Depending where the head strikes, the quality of the tone changes.

Piano



- A percussion instrument that is played by pressing keys on a keyboard. Each key is a lever that makes a hammer inside the piano hit a string inside, producing a sound.
- Each string has a different length and so produces-a different note.
- Most modern piano have a row of 88 black keys and 52 white keys.

Xylophone



- People play the xylophone by hitting the bars with a mallet (a kind of drum stick). Each piece of wood is a different length, so they play different notes when they are hit.
- It is the deepest of the saxhorns.