

INSTRUMENTS OF THE ORCHESTRA

An orchestra is an organized body of strings and (usually) other families of instruments with more than one player to a part. There are four families of instruments that make up an orchestra. They are: **Strings, Woodwinds, Brass and Percussion.**

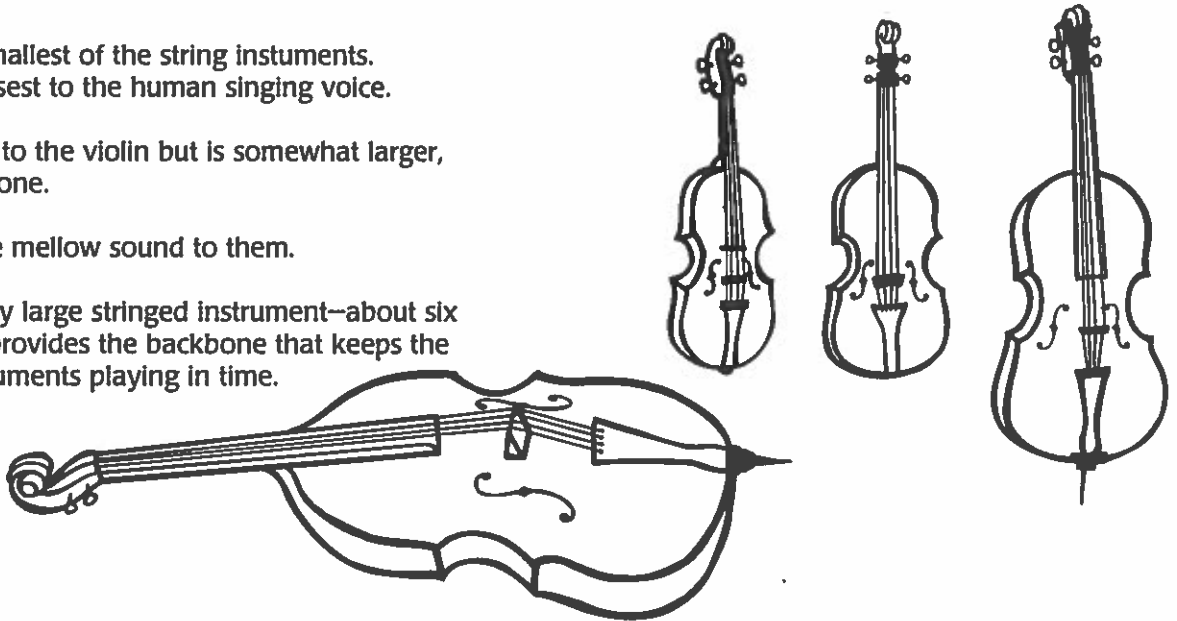
STRINGS are instruments that produce sound when a stretched string is plucked, bowed or struck by a hammer, causing it to vibrate. These instruments are made of wood. Most common stringed instruments are the violin, viola, cello and bass. This group also includes the piano and harp. They are the backbone of the orchestra and are given the most important music in the *score* (see definition of *score* in the glossary).

The **violin** is the smallest of the string instruments. Its sound is the closest to the human singing voice.

The **viola** is similar to the violin but is somewhat larger, giving it a deeper tone.

Cellos have a more mellow sound to them.

String Bass is a very large stringed instrument—about six feet tall! Its music provides the backbone that keeps the other musical instruments playing in time.



WOODWINDS are instruments that produce sound when a stream of air passes over an edge or by a reed, causing a vibration and therefore sound. These instruments are usually made of wood, ebony and metal. Reed woodwinds include the oboe, clarinet, English horn and bassoon. Edge woodwinds include the flute, piccolo and recorder. Woodwinds add color and shape to the music produced by the strings.

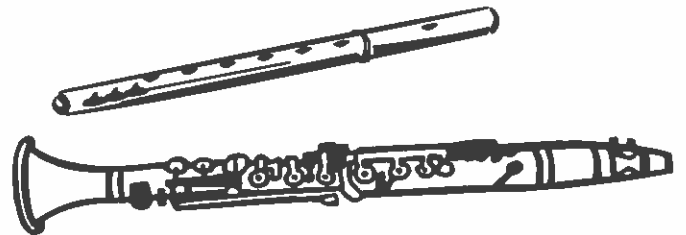
Flutes are in the orchestra, and often have rapid, flowing parts. They have a cool, airy sound.

Piccolos are like flutes but higher in *pitch* (see glossary) and smaller in size. They are the brightest sounding instruments in the orchestra.

Clarinets are the expressive woodwinds. Because their *timbre* (see glossary) changes as it changes pitch, the clarinet can make sounds filled with love or full of anger.

Oboes have a tiny reed on top, which make them tricky to play. They sound rather nasal but add an exotic quality to the orchestra.

Bassoons are the lowest sounding woodwinds and act as a foundation for them. They blend well with French Horns.



BRASS instruments produce sound when the air is set in motion against a cup-shaped mouthpiece.

The further air travels in a brass instrument, the higher or lower the sound will be. These instruments are made of brass, therefore the name of their family. Most common brass instruments are the trumpet, horn, tuba, French horn and cornet. Brass instruments are the "heavy artillery" of the orchestra; they add reinforcement of sound to the orchestra, especially when powerful and full sound is called for. They also can be used for soft effects (the trombone is used for such an effect) or for a military character (the trumpet is a popular choice).

Trumpets have a bright sound which can carry melody. Often the trumpet is used to musically describe a character part in the opera.

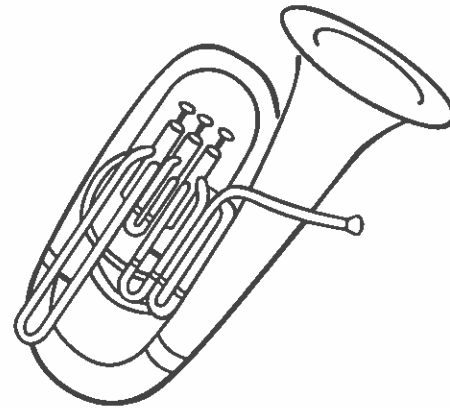
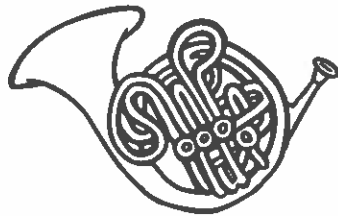


Trombones slide a u-shaped crossbar back and forth to produce sound, whose resulting tone can be solemn and dignified. The crossbar can also be used to make sliding noises that sound really funny, too!



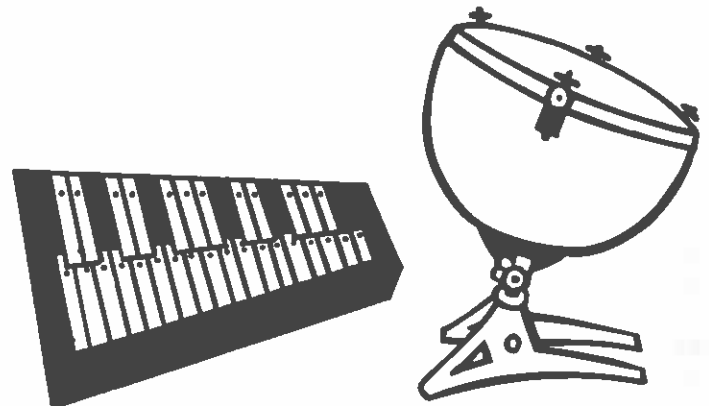
Tubas have the lowest, deepest sound of the orchestra. Their job is to carry the bass and support upper melodies of the orchestra.

French Horns have the reputation of being the most difficult of orchestral instruments to play! Three separate techniques are required. The sound of this instrument is rich and melodious.



PERCUSSION instruments are played by shaking or striking a thin skin, plate, bar of metal or wood or other hard material. Some of these instruments can produce pitch, others cannot. Percussion instruments that can produce pitch are xylophone, glockenspiel and tubular bells; ones that cannot are drums, cymbals, castanets and tambourine. Percussion instruments combine *rhythm* (see glossary) and special effects.

Kettledrum (or Timpani) is a very big drum that has pitch. Usually two or three are used during a performance and are played by two sticks whose heads are covered with felt.



Glockenspiel or Xylophone are two instruments made from horizontal rectangular pieces of metal or wood of varying length, and are struck by two wooden hammers.

Cymbals are shaped like two pot lids or dinner plates. These are fun to play—one is held in each hand and they are crashed against each other! They add emphasis to a dramatic point in the music.



Tamborines are made from thin material stretched around a rim, with little cymbals attached to the sides. When you hit the skin with your hands, or shake it, you'll create rhythm for music.