

STRING FAMILY

One of the earliest stringed instruments to be played with a bow was the viol.

After many years, other stringed instruments of different sizes, also played with a bow, were developed—the violin, viola, violoncello, and double bass.

The string family was the first family of the orchestra.

The strings express the warmth and emotion usually associated with the human voice, and are often arranged in the orchestra like the voices of a choir.

In the symphony orchestra there are usually 16 first violins, 14 second violins, 12 violas, 10 cellos and 8 to 10 double basses.

Each stringed instrument is made of about 70 parts, held together with glue. Several kinds of wood are used, including maple, spruce and ebony.

The bow is often made of pernambuco wood from Brazil. The hair on the bow is bleached horsehair. The hair is rubbed with rosin to make it less slippery. The friction of the hair on the strings makes the strings vibrate.

The longer the string the lower the tone. The thicker the string the lower the tone. A short string vibrates rapidly and produces a high pitch; a long string vibrates slowly producing a low pitch. The large, long strings of the double bass vibrate so slowly one can see the vibrations.

When the fingers of the left hand press down on a string, the vibrating part of the string is shortened and the pitch is raised.

The wooden part of the instrument also vibrates and acts as a resonator, making the vibrations sound more loudly. The resonating quality of a stringed instrument depends upon the careful construction, the wood, and the finish used.

A soft far-away sound is produced by placing a **mute** on the bridge, which dampens the vibrations of the instrument.

Pizzicato is an effect produced by plucking the strings.

Vibrato is a slight wavering of the tone, produced by trembling the left hand and fingers on the string.

Sliding a finger along the string while bowing is called a **glissando**.

The **Concertmaster** is the leader of the string section and sits to the left of the conductor, at the head of the first violins.

Chamber music (music for small groups of instruments) is often written for the string quartet, (two violins, viola and cello).

HARP

The harp is a stringed instrument. It is played by plucking the strings with the fingers. It is never played with a bow, as are the violin, viola, cello and double bass. It is not considered a member of the string section of the symphony orchestra.

The harp has 47 strings. The C strings are usually red and F strings blue to help the player find the correct string.

There are seven pedals at the base of the harp which, when depressed or released, raise or lower the pitch of the strings.

VIOLIN

Because the violins “sing” beautifully, they often play the melody of the music; however, an artist can produce almost any musical effect with the violin.

Many violin makers spent a lifetime perfecting the construction, the wood, the glue, and the design of the violin and bow. Over 300 years ago the violin was made as we know it today. The great violin makers lived in Cremona, Italy—the Amati family, Antonio Stradivarius and Joseph Guarnerius.

VIOLA

The viola is one-seventh larger in size than the violin and can play a fifth lower.

The strings are thicker than those of the violin, and the tone is not as brilliant. Rather the tone is nasal and veiled, more subdued in quality.

VIOLONCELLO

The violoncello is commonly called “cello.”

The strings of the cello are an octave lower than those of the viola.

The “baritone” voice of the cello often “sings” in the orchestra, playing the melody.

DOUBLE BASS

The double bass, string bass, or bass viol, provides the bass or foundation of the harmony in the orchestra.

It seldom plays a melody except for a special effect, or when it plays the melody an octave lower than the cellos.