

Competency	5.0	-	Ability to exhibit awareness of the structure, sound production and quality of tone in musical instruments.
Competency Level	5.1	-	Defines, describes and identifies the tone quality of the string instruments belonging to the string Section of the Orchestra
Activity	5.1.1	-	Explores the String Section of the Orchestra

Let's Identify the String Instruments of the Orchestra

We have learnt Instruments of the Orchestra in Grade 6. In grade 7 you have discussed Percussion Instruments as well.

Let's discuss what we have learnt in Grade 6 and 7 first.

The Orchestra

An Orchestra is a large group of musicians who play together, under the direction of a conductor. There are four main sections in the Orchestra.

1. **String Section**
2. **Wood wind Section**
3. **Brass wind Section**
4. **Percussion Section**

In this lesson, we will study the **String Section** which is the most important section of the Orchestra.



Let's read the following conversation between two sisters.



Visaani: Akka, Look! Look! That's a big violin. It is so.... big.

Pravini: Nangi, that's not a violin, we call that instrument a 'Cello'.



Visaani: Oh.... I thought it's a violin. It's shaped just like a violin.

Pravini: No Nangi, instruments in the string section of the instruments look very similar and they similar manner. They all have wooden of different sizes.



there are mainly 4 Orchestra. All string are all played in a bodies but they are

Visaani: Akka, if all the instruments are made out of wood, why do you call them string instruments?

Pravini: Because, the sound is produced by a set of stretched strings. The strings are made out of gut, nylon and steel. The sound is produced by drawing the bow across the strings or by plucking the strings. Bow is a long wooden piece which has horse hair. Can you imagine, a single violin bow will use between 160-180 hair?



Visaani: Ah... so that's the bow! I have seen some sisters and brothers of our school apply something on their bows before playing their instruments.

Pravini: That's Rosin, which causes it to bind well on to the strings and make them vibrate.

Visani: You told me that there are four instruments in the string section. What are the other instruments?



Pravini: Violin, Viola, Cello and double Bass are the string family instruments. They have 4 strings each. Harp is also a string instrument in the orchestra but it is never bowed.



Visani: Why is that?

Pravini: String family instruments produce sound by both drawing a bow across the strings and by plucking the string. But the harp is played only by 'plucking the strings' with the fingers. 'Arco' is a special Italian term given to 'use the bow' and 'Pizzicato' means 'plucking the string'.

Visani: The Violin has a lovely tone.

Pravini: The Violin is the smallest instrument in the string section, and it has the highest pitch. Double Bass is the biggest instrument there, and it has the lowest pitch.

Visani: I didn't understand that.

Pravini: I'll tell you a good example. Magpie Robin is a small bird. It sings high in pitch. The owl is a lot bigger than the Magpie, but it has a very low pitched sound. Just like that, the small instruments have a high pitched sound; the big instruments have a low pitched sound.



Visani: Oh... You know so many facts.

Pravini: Ah... I forgot to tell you something. Cello is much larger than Violin and Viola. It is difficult to hold the instrument under the chin as it is heavy to carry. Therefore, it is kept between the knees of the player. Cello is played in a seated position. Even if the national anthem is being played, the cellist plays it seated.

Visani: What about the Double bass?

Pravini: It is about six feet tall. So the player has to stand or sit on a high stool to play it.

Visani: I got to know so many facts about the string instruments of the Orchestra. Thank you so much Akka.

Pravini: It's a pleasure my dear Nangi.

You must have got a general understanding about the string section of the orchestra by the above conversation. Now, let us look into these instruments in detail.

String Instruments

- Instruments in which the **sound producing agent is a set of stretched strings** are known as stringed instruments.
- All stringed instruments have nylon, steel or gut strings.
- Strings are stretched above the hollow sound box.
- The bow is a long piece of wood with horse hair stretched from one end to the other end.
- It is rubbed with a sticky substance called ‘rosin’ which helps to create friction between the bow hair and strings.
- String Section is the **‘backbone of the Orchestra’**.
- There are **four members** in the string family.
 - Violin
 - Viola
 - Cello
 - Double Bass

Now, you can compare the sizes of the String Instruments.



Positioning in an Orchestra



The most important members of this section are

- The Violin family - strings are vibrated by bowing
- The Harp - strings are plucked by fingers
- The Piano - strings are struck by hammers

There are 2 kinds of stringed instruments.

1. String instrument which are bowed (Violin Family)

Violin, Viola, Cello, Double Bass

2. String instrument which are plucked with fingers or a plectrum

Guitar, Mandolin, Banjo, Lute, Lyre, Zither, Harp

Strings are vibrated by drawing a bow across the strings	- Arco
Plucking the strings with fingers	- Pizzicato

The pitch of a note is decided by,

1. **The length of a string**

Long strings produce low pitch

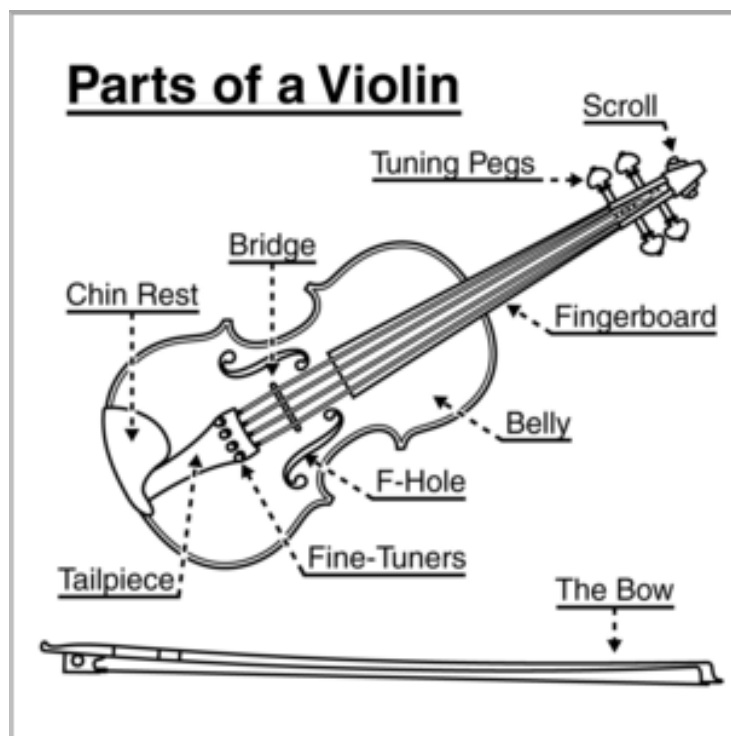
Short strings produce high pitch

2. The tightness or the tension of the strings

Tighter the strings, higher the pitch

3. The thickness of the strings.

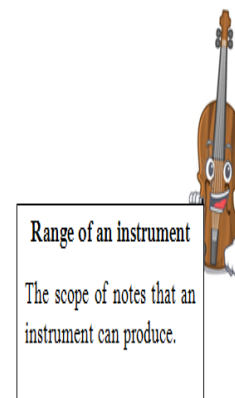
Thick strings produce low pitch



Violin



- The violin is the **smallest** stringed instrument and has the **highest pitch**.
- The violin is held between the left collar bone and chin.
- It is rested between the thumb and fingers.
- The violin is played by drawing a bow across the strings near the bridge.
- There are **four strings**. They are tuned to **GDAE** (in perfect 5th s).
- The music for the violin is written in the **Treble clef**.
- It is a very popular instrument which has a lovely expressive singing tone.
- It is known as the '**Queen of the orchestra**'.
- In an Orchestra, there are 1st violinists and 2nd violinists.
- The leader of the Orchestra is the **Concert Master**, he is the principle 1st violinist.
- Ananda Dabare is one of the famous violinists in Sri Lanka.
- Antonio Vivaldi and Niccolo Paganini are world famous Violin players .
- Stradivari family is a famous Violin maker's family.

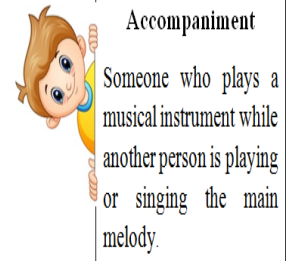


Viola



- The Viola is identical to the violin in shape and the way it is played.
- But it is slightly larger than the violin and lower in pitch.
- The four strings of the viola are tuned to **CGDA** (in perfect 5th s).
- Music for the viola is written in the **Alto Clef**.
- It is also called the ‘**Cinderella of the Orchestra**’.
- It is rarely used as a solo instrument and usually plays the **accompaniment to the main melody**.
- A famous Sri Lankan Viola player is Ashan Pillai.

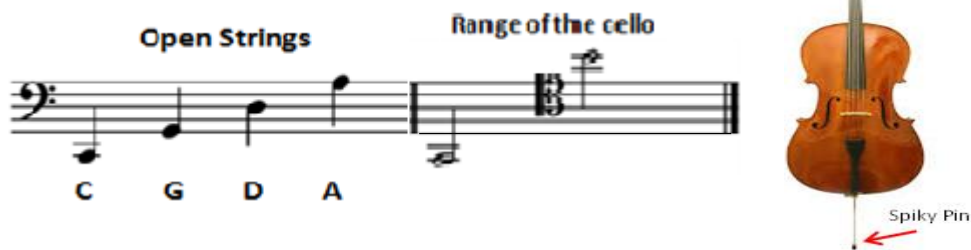
He is a British Violist who was born in Sri Lanka.



Violoncello



- The full name of this instrument is **Violoncello**.
- It is popularly known as **Cello**.
- The cello is much larger than both the violin and the viola.
- The bow of the cello is shorter and heavier than the bow of the viola.
- The strings of the cello are tuned to **CGDA** (in Perfect 5th s) but an octave lower than the Viola.
- It is played in a **seated position**. It is held between the player's knees, while the spike pin touches the floor and locks it.
- Music for the Cello is written in the **Bass clef** and sometimes the **Tenor clef** is used for higher notes.
- A Cello usually helps to supply the harmony in Orchestral Music.
- It is also a popular solo instrument which plays a melody with a beautiful rich tone.
- A famous Sri Lankan cellist is Rohan de Saram.



Double Bass

- The double bass is the largest stringed instrument and has the lowest in pitch.
- It is known as Contrabass.
- It is about **six feet** tall.
- It is played in a **standing position**. Sometimes a high stool is used for convenience when playing for long hours.
- The strings are tuned to **EADG** in Perfect 4th s.
- It plays the bass part, which is the foundation of the harmony.
- It is mostly plucked.
- Music for the double bass is written in the **Bass clef**.
- The strings of the double bass are very long and thick.
- The double bass has the shortest bow.

- It is a **transposing instrument** which sounds one **octave lower than written**.



Open Strings Range of the double bass

E A D G

Sounds one octave lower than written

The image shows a musical staff in bass clef. The first four notes are E, A, D, and G, representing the open strings of the double bass. Below the staff, the letters 'E A D G' are printed. Brackets under the first two notes and the last two notes are labeled '8 vb', indicating an octave transposition. The text 'Sounds one octave lower than written' is centered below the staff.



Transposing Instruments
 A musical Instrument that sounds at a different pitch from that of the written Score

For further references and listening

<https://www.youtube.com/watch?v=LSNqEILx4ZE&t=56s>

<https://www.youtube.com/watch?v=EaHmr8DQpCU&t=12https://www.youtube.com/watch?v=azwRCDORHWA>

Activities

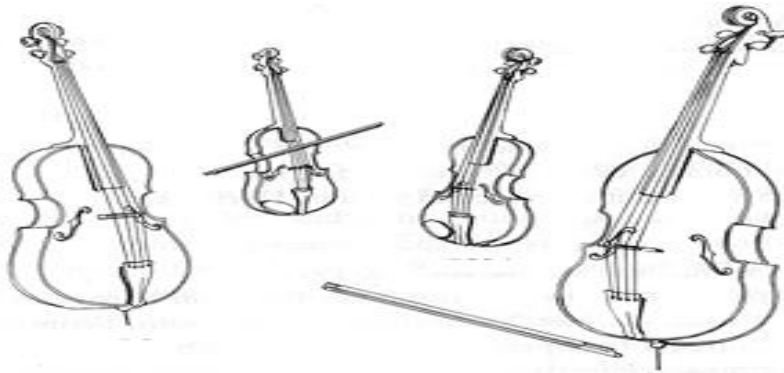
1. Match the following Instruments.

Violin

Double Bass

Cello

Viola



2. Fill in the blanks

- a) One of the above instruments is played in a seated position.
Name the instrument.....
- b) Name four main instruments in the string section.
.....
- c) Name four strings of the Violin
- d) Name the lowest pitched instrument in the string family.....
- e) Leader of the Orchestra is known as the

3. Underline the correct answer.

- i. What do these instruments have in common?
 (a) Keys (b)Strings (c)Mouth piece (d) Drumsticks
- ii. Most of the string instruments are made of
 (a)Plastic (b) Metal (c) Wood (d) Brass
- iii. Which one is **not** a way of playing the string instruments?
 (a)Plucking (b) Bowing (c) Blowing (d) striking
- iv. Which of the following string instruments has the highest pitch?
 (a)Violin (b) Viola (c) Cello (d) Double Bass
- v. Which of the following string instruments is a transposing instrument?
 (a)Violin (b) Viola (c) Cello (d) Double Bass

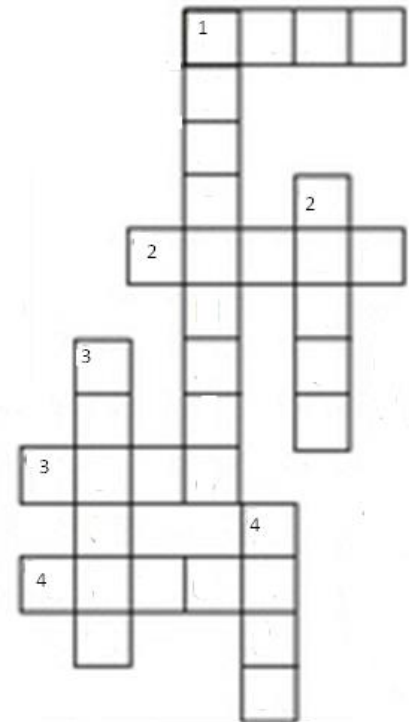
4. Fill in the Crossword Puzzle given below.

Across

1. A string instrument that is never bowed
2. An instrument bigger than Viola and smaller than the Double bass
3. How many strings do most of the String Instruments have?
4. Cinderella of the orchestra

Down

1. The soft part of the bow is usually made up of,
2. Pizzicato means
3. Most popular instrument of the Orchestra
4. Music for the double bass is written in theclef.



5. Fill in the Blanks using the given words below.

[String Section, Four, Alto Clef, Arco, Double Bass]

- i. The violin has strings.
- ii. is used to write the Music for Viola.
- iii.is the back bone of the Orchestra.
- iv. is the largest string instrument and it is about 6 feet tall.
- v. is the term to use the bow.