



Music Sparks My Instrument and Me



A digital guide to the instruments of the orchestra
for families, schools and Instrumental Music Services.

Children's Music Foundation in Scotland. Registered Scottish Charity SC022841



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Follow this QR code to watch the Essential Orchestra and the musicians' videos that accompany 'My Instrument and Me'.



Useful Information

- **Learn about the instruments and sections of the orchestra** through videos and interesting facts.
- Follow the QR code on the Contents page to **watch demonstrations of all the instruments** by members of CCC's Essential Orchestra.
- See the instruments close-up and discover how each instrument produces a sound.
- **For Schools** – this resource is a useful accompaniment to any project about the orchestra and can be split by section and used over several weeks.

Curriculum of Excellence outcomes - EXA 1-19a / EXA 2-19a



- **For Instrumental Music Services** – this resource is a valuable tool in the recruitment and instrument selection process.
- **For Families** – learn more about your favourite instruments before or after attending one of our concerts or watching one of our digital concerts.
- **Watch a performance by the full orchestra.**
- **Get in touch** with us at any time for support or to discuss potential workshop visits in the future from our team of musicians (subject to funding).

Meet our Musicians...the Essential Orchestra

An **Orchestra** is a group of musicians ranging from around 20 players to as many as 120 players in a large Symphony Orchestra. There are many different instruments in the orchestra belonging to four families (or sections). These sections are **The Strings**, **The Woodwind**, **The Brass** and **The Percussion**. You will hear music played by an orchestra (orchestral music) everywhere, from film soundtracks to TV theme tunes and adverts. There are 20 musicians in our Essential Orchestra.



The Strings



The Strings are the largest section in the orchestra – in a full Symphony Orchestra there can be as many as 50 string players. There are four different types of string instruments – from smallest to largest these are the **violin**, **viola**, **cello** and **double bass** – and apart from size, these instruments have many things in common. The string instruments are all made of wood and are hollow inside – if you look closely, you will see two curly shapes cut in to the wood on either side of the strings. These are called **f holes** and allow the sound to escape from the instrument.

These instruments each have **four strings** of different thicknesses, the thickest string produces the lowest pitch, and the thinnest string produces the highest pitch. The instruments are mainly played with a **bow** which is a long wooden stick with horse hair stretched across. The sound is made by pulling the bow across the strings which creates a vibration (or soundwave).



Violin

The smallest and highest string instrument, the violins are split into two groups in an orchestra – first violins and second violins.



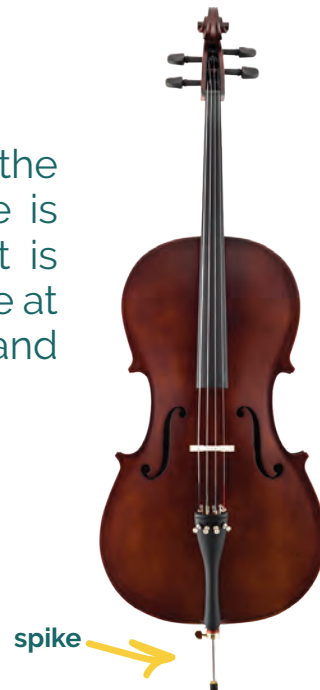
Viola

The viola looks very similar to the violin, but it is a bit bigger and deeper in sound



Cello

The cello is much larger than the violin and viola and therefore is not played under the chin! It is propped on the floor by a spike at the bottom of the cello and played across the body.



Double Bass

The double bass is even bigger than the cello so the player needs to sit on a stool to reach the strings on the fingerboard.



The Woodwind

Woodwind instruments need air to make the sound - this is where the 'wind' part of the name comes from. The other part of the name - 'wood' - tells us what the instruments are made from. Have a look at the pictures of the instruments on the next page - can you spot the odd one out? One of the instruments, the flute, is usually made of metal nowadays, but older versions of the flute were wooden, and this is why it belongs in the woodwind family.

In an orchestra there are usually 2 or 3 of each of the woodwind instruments. Sometimes you will see other versions of these instruments that look similar but are larger or smaller. For example, the flute has a wee friend called the **piccolo** (this means 'little flute' in Italian), and the clarinet has a big buddy called the **bass clarinet** which is very large so rests on a spike on the floor and is played between the legs like a cello.



piccolo



bass clarinet

Another member of the woodwind family is the **saxophone**. Some people might think the saxophone belongs in the brass section as it is made of metal, but as the saxophone has a single reed like the clarinet, it is a woodwind instrument. You will sometimes see the saxophone in orchestras but most often you will find saxophones in jazz and swing bands.

Flute

The smallest and highest instrument in the woodwind family. The flute is held to the side to play.



Oboe

The oboe is medium sized and, like the bassoon, has a double reed which produces the sound.



Clarinet

The clarinet can play a large range of notes. It has a single reed attached to the mouthpiece.



Bassoon

The bassoon is the largest and lowest instrument in the woodwind family. You will see the end of the bassoon (the bell) poking out from the rest of the woodwind section so the bassoons are easy to spot!



The Brass

This family of instruments includes the **French horn**, **trumpet**, **trombone** and **tuba**. These instruments are made of metal and, like the woodwind, need air to make the sound. Just blowing into the mouthpiece won't work though – you need to vibrate your lips together as you blow to create the sound. It is a bit like blowing a raspberry! Brass players call this buzzing.

In an orchestra you will usually find 4-5 French horns, 3 trumpets, 3 trombones and 1 tuba. Don't be fooled by the size of the brass section though – it might be small but it is mighty and is the loudest, most powerful section of the orchestra. For this reason, you will usually hear the brass soaring over the rest of the orchestra in triumphant, heroic and dramatic music.



cornet

Brass Band Buddies

The brass instruments have an extended family including the **cornet**, **tenor horn**, **baritone** and **euphonium**. Can you guess which instruments from our brass section the cornet and euphonium are closely related to?



euphonium

French Horn

This curly member of the brass family is surprisingly long – stretched out the tube making up a French horn would measure almost 4 metres!



Trumpet

The trumpet is the highest pitched brass instrument and often plays melodies and fanfares. It's a versatile instrument and plays lots of different styles of music like funk, pop and jazz.



Trombone

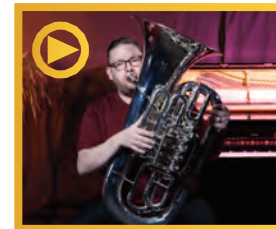


Unlike the other brass instruments, the trombone doesn't have any valves. The note is changed by moving a slide out and in. There are 7 slide positions – 1st position is with the slide all the way in, and 7th position is with the slide almost falling off!



Tuba

The tuba is the largest and lowest member of the brass family. This instrument is so large it needs to sit on the player's knee. You will see the large bell of the tuba sticking up out of the brass section.



The Percussion

This section includes all instruments that produce a sound by being hit (by the hand or a stick), shaken or scraped. There are hundreds of different kinds of percussion instruments from all over the world. Percussion instruments fall into two categories – **untuned percussion** that doesn't have a pitch like the bass drum and tambourine, and **tuned percussion** which can play different pitches (a tune!) like the xylophone or glockenspiel. Can you think of any percussion instruments that you have seen or played in school or at home? Have you ever tapped your spoon against your bowl at breakfast time? If you have, you have played percussion!

There are usually 4 or 5 percussionists in an orchestra, and the percussion section can be found at the back behind the woodwind and brass. Percussionists don't play just one instrument; they play lots of different instruments during a performance and need to move around quickly and quietly to be ready to play each instrument in time.



Marimba

This tuned percussion instrument is laid out like a piano and is a larger version of the xylophone. It is usually played with 4 beaters – two in each hand.



The hollow metal tubes underneath the wooden notes are called resonators and amplify the sound of the note. The larger and lower the note, the larger the resonator.

Clash cymbals

These circular metal instruments come in pairs and are played by holding one in each hand and striking together. Cymbal clashes highlight dramatic moments in the music.



Drums

There are many types of drums from all over the world. They all produce their sound by being hit with the hand or a stick.



Timpani

These large drums are played in sets of 4. Each drum is a slightly different size and produces a different note (or pitch), so the timpani are tuned percussion.



Vibraphone

The vibraphone is a tuned percussion instrument with metal notes and a pedal like a piano which sustains (holds on) the note when it is pressed down with the foot. There is a motor which opens and closes a flap over the end of the resonators creating a 'wah-wah' type sound a bit like singing a note and opening and closing your hand over your mouth!



We love our instrument because...



I think the **violin** chose me. I knew I wanted to play an instrument with strings and my brother's cello teacher encouraged me to try the violin. I love it as it's fun, and playing the violin feels as though I'm out in the garden having fun with my friends. I love the sound and it makes me want to sway. I try and make it sound better every time I play it.



I enjoy that there's lots of different instruments in the **percussion** family. It is difficult to choose my favourite, I think I'd say either the marimba or the glockenspiel as I enjoy their sounds and learning new solo tunes.



I like the **viola** as it's not a large instrument to carry around compared with the double bass but not as small as a violin and as an instrument it has really beautiful pieces.

I like playing spiccato and hooked bows and playing with accents as it gives life to the music.

In the orchestra it can be quite challenging but it's worth it when you get to play in concerts.



I really love the sound of the **flute**. It brings me joy and I like to get a good sound out of it. I love playing duets - it's so much fun. I also love playing in an orchestra, everyone has different parts and when you put them all together the sound is amazing.



My **trumpet** means the world to me. I chose my instrument when I was six because I liked making a lot of noise! Playing in the orchestra is my favourite hobby because I get to spend time with friends and I like the challenge of all our different parts interweaving to play together.



I really enjoy playing the **cello** because I love the sound of the low notes and tones it makes. I like to play my cello on my own and with my friends in orchestra.



I like that the **clarinet** can be a soloistic instrument. It has a large range playing both very high and low notes. I enjoy feeling the vibrations of the instrument when I play, it feels like an extension of me.



I like playing the **double bass** because it goes really low and you get to explore all the different positions. You're really important because you give everyone in the orchestra the beat and the bass notes. Carrying it can be a challenge but I'm used to that now!



I love playing the **French horn** because it sounds amazing and you hear it in lots of awesome movie music! It's also special because it's the only brass instrument you play with your left hand, and since I'm left-handed, it's the perfect match for me.



I love the sound of my **cello** - the deep rich notes which come from playing it. I love the feel of my cello when I play and how it vibrates. It means a lot to me, it's calming and it's fun to play.



Harry
Age 16

I like the **oboe** because it has a unique, expressive sound and often plays beautiful solo parts. In the orchestra, it helps with tuning, which is really important, and I enjoy the challenge of making sure it blends well with everyone else. Playing the oboe can be tricky, but it's very rewarding when you get the phrasing and solos just right!



Figi
Age 14

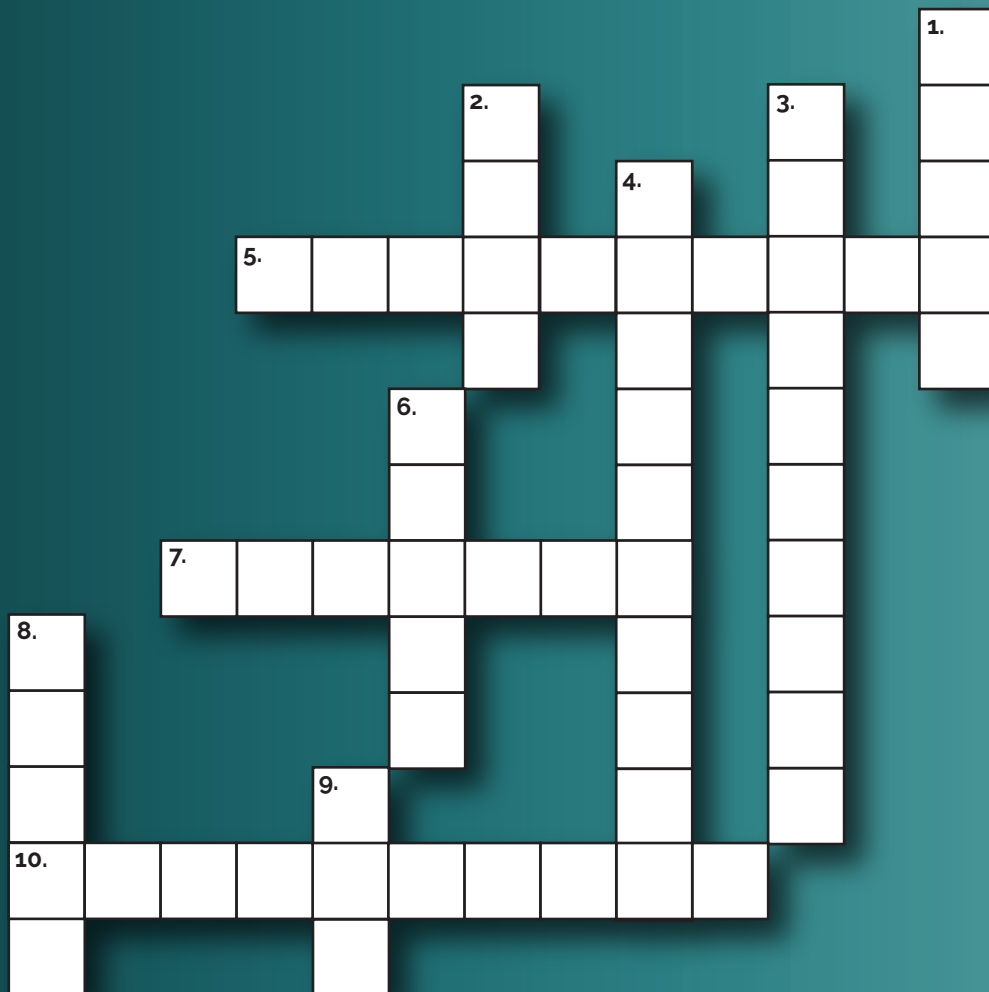
I saw the **bassoon** and thought it was an unusual instrument, I had never seen one. When my teacher played it to me, I really liked the sound. The bassoon gives me many playing opportunities, and I play in two different bands. I love that the bassoon gets all the basslines. I feel that the basslines are sometimes underrated but are actually so important.



Ruby
Age 9

I like that I get to play lots of different types of instruments in the **percussion** section.

Put what you've learned
so far to the test with our
crossword puzzle...



Across

- 5.** The oboe and bassoon need this to make a sound (6, 4)
- 7.** The largest section of the orchestra with as many as 50 players (7)
- 10.** This circular percussion instrument is held in the hand and played by shaking or tapping (10)

Down

- 1.** This needs to be pushed out and pulled in to change the notes on a trombone (5)
- 2.** The largest and lowest brass instrument (4)
- 3.** The tube of this curly brass instrument is so long if it was unraveled it would measure almost four metres in length! (6, 4)
- 4.** This section is made up of tuned and untuned instruments and you hit them to make the sound (10)
- 6.** The cello and double bass are so large that they have a _____ at the bottom which goes into the floor (5)
- 8.** This woodwind instrument is often made of silver metal these day, but use to be made of wood (5)
- 9.** The string instruments are played by pulling a stick called a ___ across the strings (3)

Be Inspired!

Below is a list of all the pieces of music our musicians played in the videos.
Head to our playlist to hear them in full



Listen here!

Violin	Canon in D - Pachelbel
Viola	'Waltz' from <i>Sleeping Beauty</i> - Tchaikovsky
Cello	'The Swan' from <i>Carnival of the Animals</i> - Saint-Saëns
Double Bass	'The Elephant' from <i>Carnival of the Animals</i> - Saint-Saëns
Flute	Port Na bPúcaí - Traditional
Oboe	'Theme' from <i>Swan Lake</i> - Tchaikovsky
Clarinet	'The Cat' from <i>Peter and the Wolf</i> - Prokofiev
Bassoon	The Sorcerer's Apprentice - Dukas
French Horn	'Allegro' from <i>Horn Concerto No. 1</i> - Mozart
Trumpet	'Theme' from <i>Superman</i> - John Williams
Trombone	'The Imperial March' from <i>Star Wars</i> - John Williams
Tuba	Fnugg - Øystein Baadsvik
Xylophone	'Fossils' from <i>Carnival of the Animals</i> - Saint-Saëns



Watch and listen to 'Eightsome Reels arr. Chris Gough' performed by the full Essential Orchestra here.

Keep in Touch

Thank you so much for your interest in CCC and for learning all about 'My Instrument and Me' – we hope it's been lots of fun!



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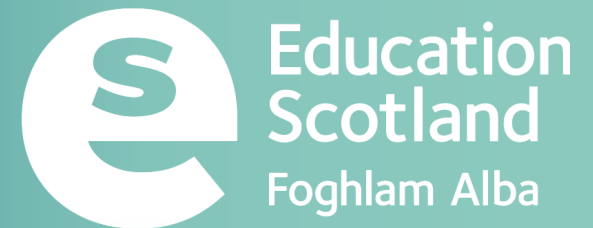
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Thanks to the students from Big Noise Govanhill who featured in the 'We Love our Instrument' section.



ALBA | CHRUTHACHAIL



DOWN: 1. SLIDE, 2. TUBA, 3. FRENCH HORN, 4. PERCUSSION, 6. SPIKE, 8. FLUTE, 9. BOW

ACROSS: 5. DOUBLE REED, 7. STRINGS, 10. TAMBOURINE

ANSWERS TO THE CROSSWORD: 19