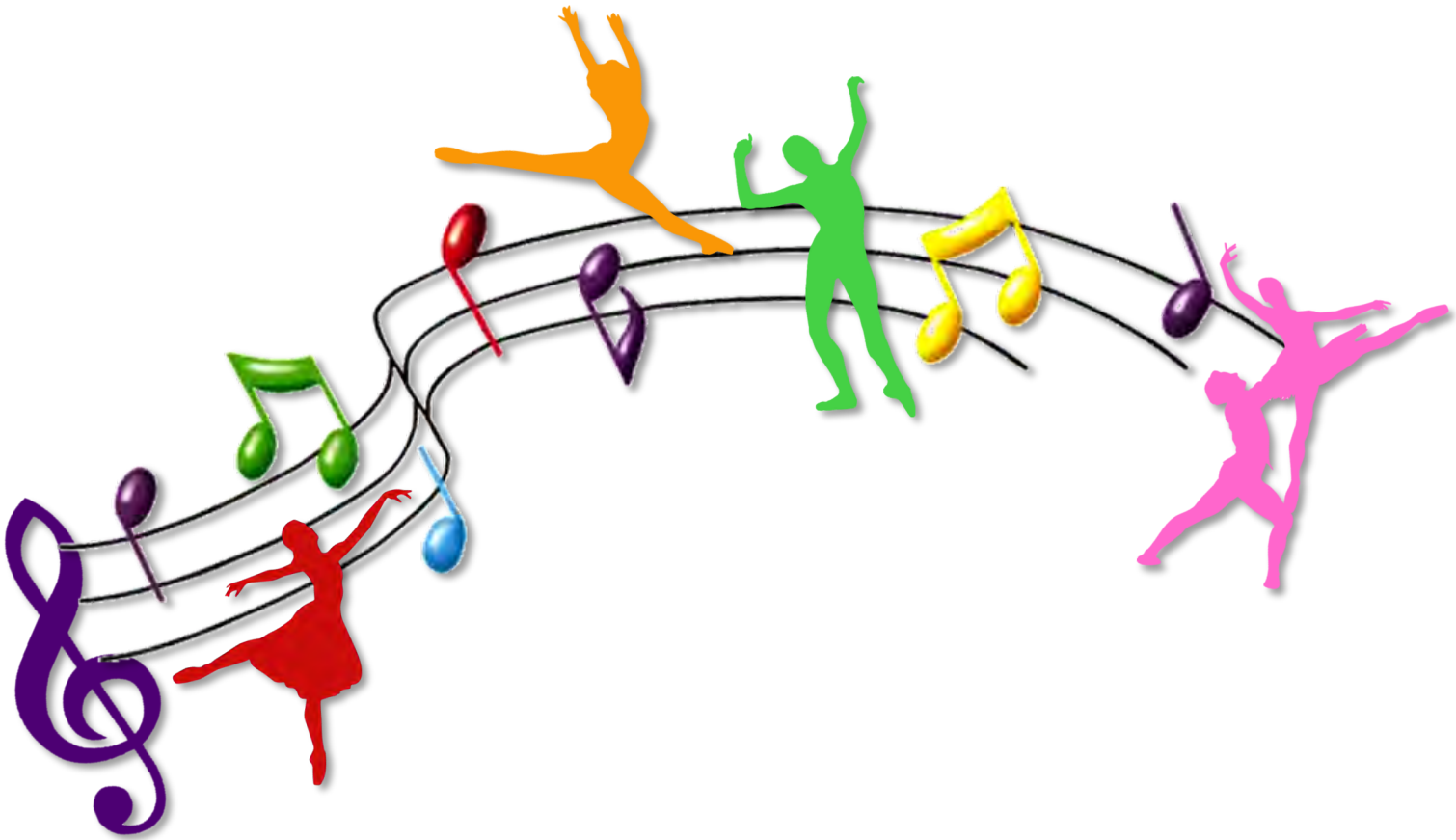


HoustonBallet



***Young Person's Guide To
The Orchestra***
Study Guide

EDUCATION & COMMUNITY ENGAGEMENT
EXPOSE.EDUCATE.INTEGRATE.



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Learning Outcomes

Students who view the *Young Person's Guide to the Orchestra* Virtual Field Trip and utilize the study guide will be able to:

- Describe the 4 instrument families;
- Name at least 1 instrument from each family;
- Describe how each family creates vibrations to make sound;
- Describe at least one dance from *Young Person's Guide to the Orchestra* in words or pictures.



Artists of Houston Ballet in Stanton Welch's *Young Person's Guide to the Orchestra*

Photo: Amitava Sarkar



Choreographer



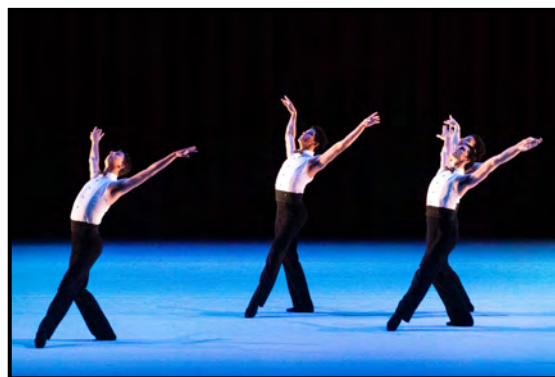
Stanton Welch AM.

A **choreographer** is the person who makes up the steps that the dancers do in the performance. Stanton Welch choreographed *Young Person's Guide to the Orchestra* in 2014 as he celebrated his 10th year with Houston Ballet.

Stanton Welch AM was born in Melbourne, Australia to Marilyn Jones, O.B.E., and Garth Welch, AM, two of Australia's most gifted dancers of the 1960s and 1970s. In 1986 he began his training at the late age of seventeen, quickly winning a scholarship to San Francisco Ballet School. In 1989 he was engaged as a dancer with The Australian Ballet, where he rose to the rank of leading soloist.

In 1990 he received his first choreographic commission from The Australian Ballet, the beginning of a series of commissioned works over the next 14 years as he developed his diverse choreographic style. He has created works for such prestigious international companies as Houston Ballet, San Francisco Ballet, American Ballet Theatre, The Australian Ballet, Birmingham Royal Ballet, and Royal Danish Ballet. In July 2003, Mr. Welch assumed the leadership of Houston Ballet, America's fourth largest ballet company, as artistic director. Since his arrival, Mr. Welch has transformed Houston Ballet by raising the level of classical technique, infusing the company with new energy, drive and vision; introducing works by distinguished choreographers to the repertoire; and attracting some of the world's best coaches to Houston to work with the dancers.

For his contributions to the world of dance, Mr. Welch was awarded the Order of Australia (AM) in June 2015. The prestigious Order of Australia Award, established in 1975, is bestowed on Australian citizens for meritorious service in a particular area or field of activity. Mr. Welch was recognized for his significant service to the performing arts as a ballet dancer, mentor, choreographer and artistic director.



Artists in Houston Ballet
in *Young Person's Guide to the Orchestra*
Photo: Lawrence Knox



Composer

A **composer** is the person who makes up the music that the dancers move to in the performance. *Young Person's Guide to the Orchestra* was composed by Benjamin Britten in 1945. It has since been performed by orchestras all around the world.



Benjamin Britten

Benjamin Britten born in 1913 in Suffolk, England. He studied at the Royal College of Music in London. He was a composer, conductor and pianist. He composed a wide range of works including opera, other vocal music, orchestral and chamber pieces.

One page for the score of *Young Person's Guide to the Orchestra*. Look how many instruments are playing at the same time!

Allegro maestoso e largamente
THEME A

Piccolo
Flutes I & II
Oboes I & II
Clarinets in B \flat I & II
Bassoons I & II
I & II
Horns in F III & IV
Trumpets in C I & II
I & II
Trombones III (Bass) & Tuba
Timpani
Percussion
Harp
Violin I
Violin II
Viola
Cello
Bass

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Music & Movement



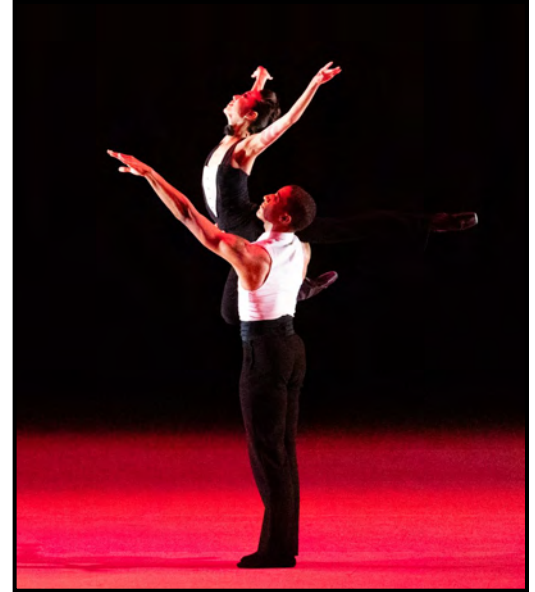
EDUCATION & COMMUNITY ENGAGEMENT
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Making Music Move

Stanton Welch choreographed *Young Person's Guide to the Orchestra* in celebration of his 10th year as Artistic Director of Houston Ballet. He felt that this piece of music was a good choice because a ballet company is a lot like an orchestra. Each dancer brings their own special quality, but they all need to work together. The ballet has 25 solos which means each dancer (and each instrument) gets a chance to shine, and they all come together to dance a spectacular finale.

In his choreography, he matches the personality of his dancers to the shape and quality of the instruments' sounds. The dancers in the picture at right represent the violins. Notice how the position of their arms reflect the way a musician holds a violin and plays it with a bow.



Artists of Houston Ballet
In *Young Person's Guide to the Orchestra*
Photo: Amitava Sarkar



Costume designer Holly Hynes create elegant costumes for the dancers that resemble the clothing orchestra members wear when they play. But, the dancers have to make big movements and dance with each other, so she carefully selected stretchy fabric that allows them to move freely and doesn't get in their way.

On the left, you see a design for the female costumes. All of the women in *Young Person's Guide to the Orchestra* wear **pointe shoes**.

Costume Rendering
for *Young Person's Guide to the Orchestra*
Designs by Holly Hynes



Music & Sound

Below are some quick facts about Music & Sound:

- The word **MUSIC** comes from the Greek goddesses of inspiration called muses.
- Musical sounds have at least 3 characteristics:
 - **Duration**– how long you can hear the sound
 - **Intensity**– loud or soft
 - **Timbre**– the quality of sound that makes it distinct from any other



Muses from the movie *Hercules*

- **SOUND** is an invisible form of energy. Our sense of hearing tells us what's happening outside our bodies.
- Sound travels in vibrations of waves through a medium or matter (solid, liquid, or gas).
 - The vibration is started by some mechanical movement such as knocking on a door or plucking a string

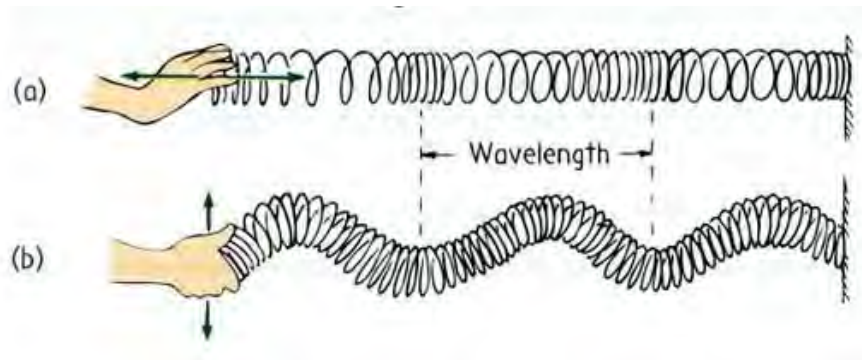


- This mechanical movement causes surrounding molecules to vibrate which causes the sound to travel.

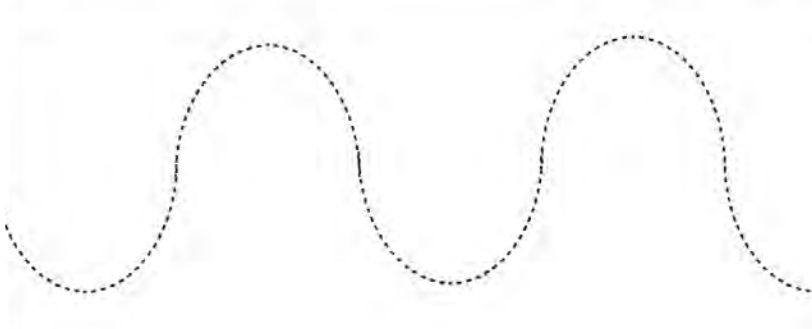


Music & Sound

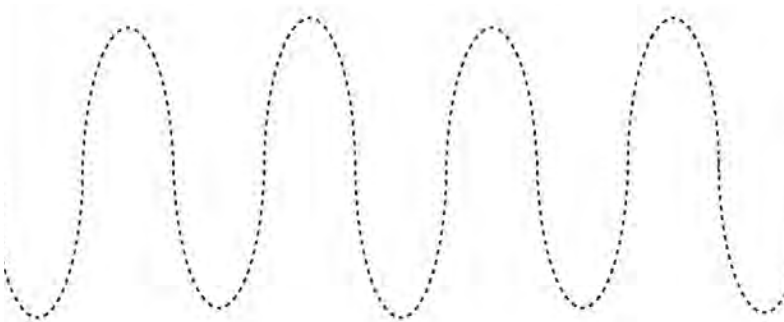
- Sound waves are longitudinal waves.
- Slinkys visually demonstrate longitudinal waves.



- Sound waves that have *more* distance between them have a low sound or **pitch**.
- A Bassoon is a woodwind instrument that has a low **pitch**.



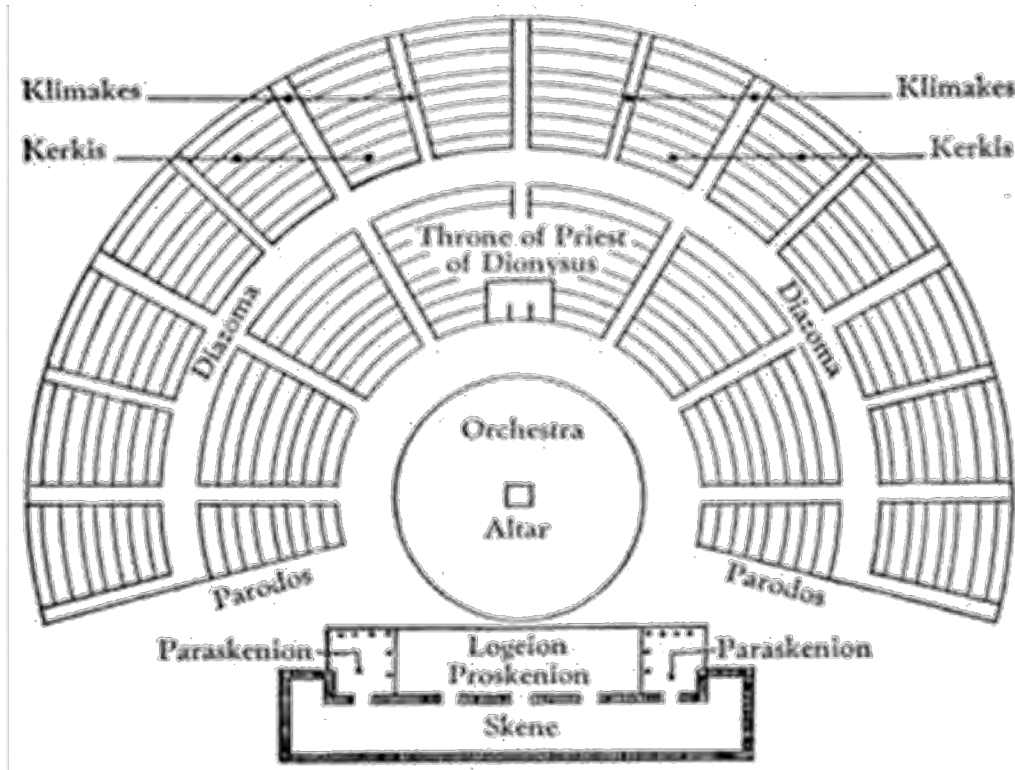
- Sound waves that have *less* distance between them have a high sound or **pitch**.
- A Piccolo is a woodwind instrument that has a high **pitch**.





What is an Orchestra?

The word **orchestra** comes from a Greek word *orcheisthai* which means to dance. The ancient Greeks built their theaters with open space in front of the stages where dancers would perform during the musical performances.

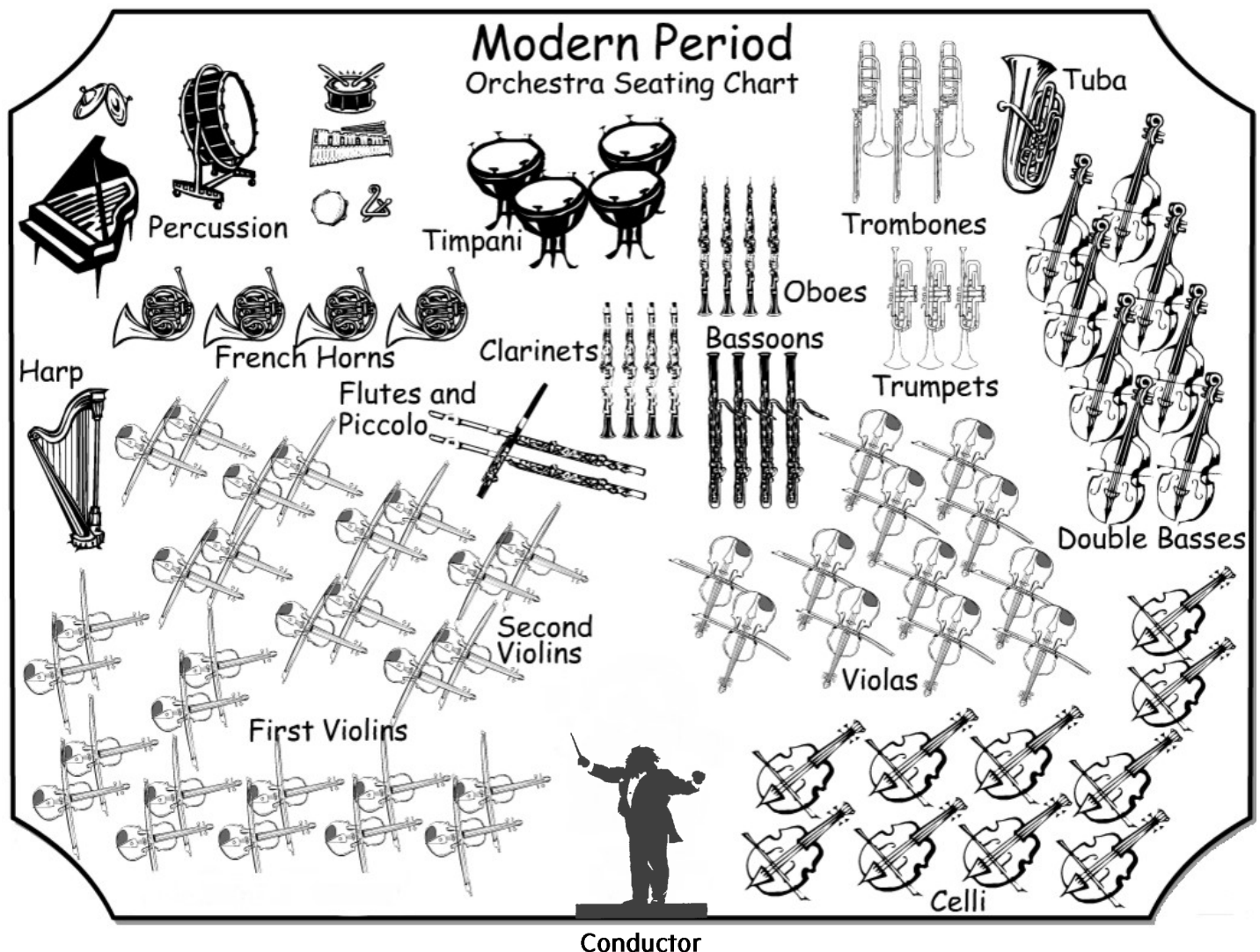




What is an Orchestra?

An **orchestra** is a large group of musicians who play together on various instruments. A full-scale **orchestra** includes at least 90 musicians, while smaller **orchestra** range from 15-45 musicians. The sections of an orchestra are set up according to which types of instruments are in it. Usually, these instruments include **strings**, **woodwinds**, **brass**, and **percussion** instruments.

Leading this group of musicians is the **conductor**. The conductor's job is to make sure that the musicians play perfectly together. A conductor keeps time using a **baton** to clearly count out each individual eat in the **tempo** the music is to be played.

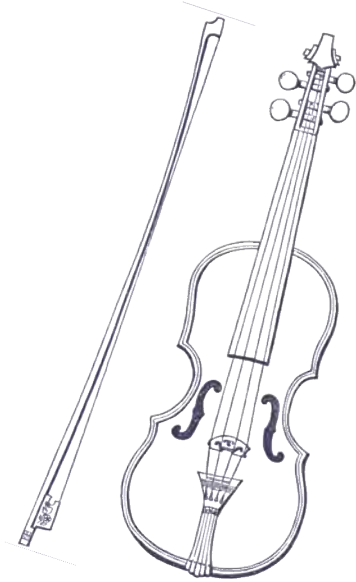




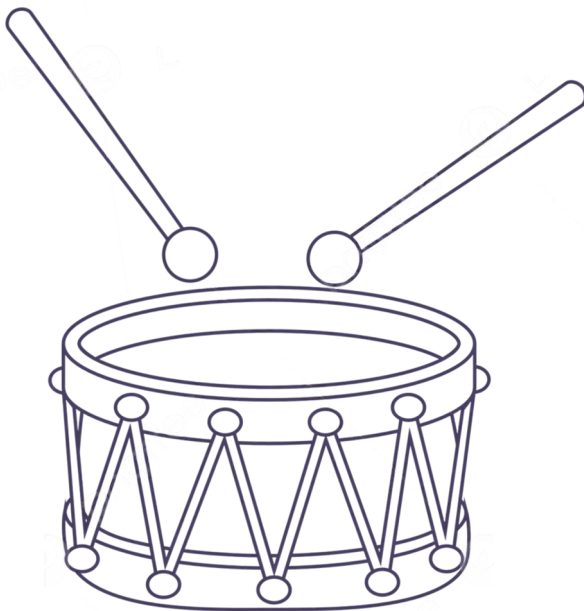
The Instrument Families



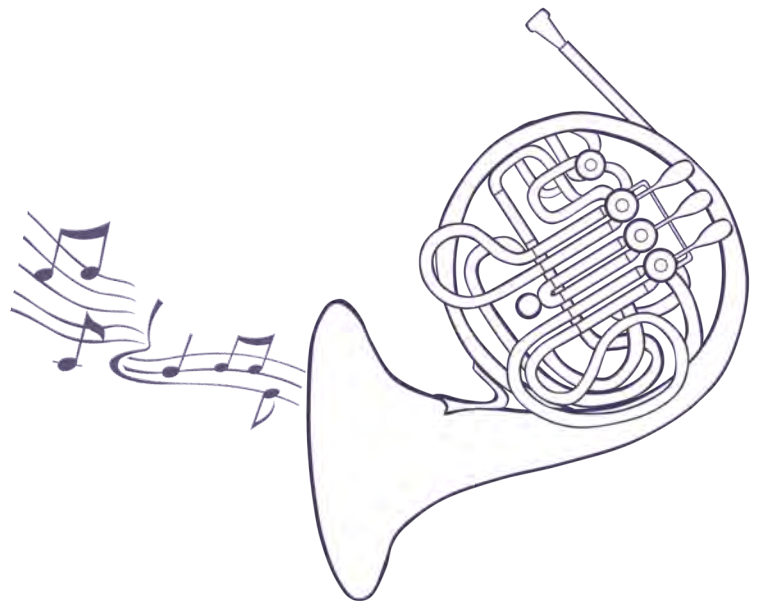
Woodwind Family



String Family



Percussion Family



Brass Family



Woodwind Family

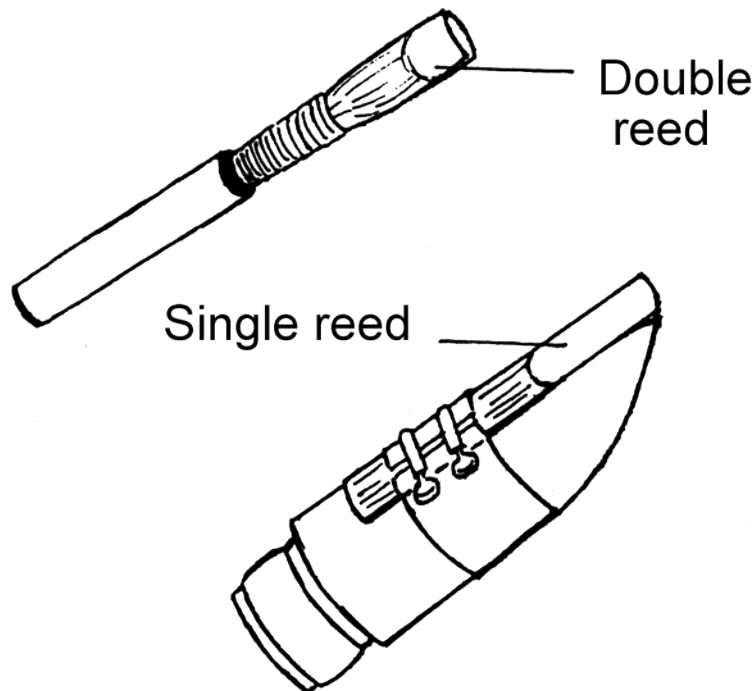
The instruments in this family all used to be made of wood, which gave them their name. Today, the instruments are made of wood, metal, plastic or some combination.

How are sounds made?

- Vibrations begin when air is blown across the top of an instrument, across a single reed, or across two reeds.
- A single reed is clamped to a mouthpiece at the top of the instrument and vibrates against the mouthpiece when air is blown between the reed and the mouthpiece.
- The double reed fits into a tube at the top of the instrument and vibrates when air is forced between the two reeds.

Who's a part of the Woodwind Family?:

- The Woodwind family of instruments includes the piccolo, flute, oboe, clarinet, bassoon, and saxophone.





Woodwind Family



The **piccolo** is exactly like the flute except that it is much smaller and is usually made of silver or wood.

The **flute** is made from silver or gold and is about 2 feet in length. The player blows air across the small hole in the mouthpiece to produce a sound that can be either soft and mellow or high and piercing.

The **oboe** does not have a mouthpiece, but has two reeds tied together. By placing them between one's lips and blowing air through them, the reeds vibrate and produce a sound.

The **clarinet** produces a fluid sound when air is blown between a single reed and the mouthpiece. By pressing metal keys with the fingers of both hands, the player has the ability to play many different notes very quickly.

The **bassoon** is a large double reed instrument with a lower sound than the other woodwind instruments.

The **saxophone** is the only woodwind instrument made of brass. Although it is found only occasionally in the symphony orchestra, it is considered a member of the woodwind family because it has a single reed like the clarinet.



String Family

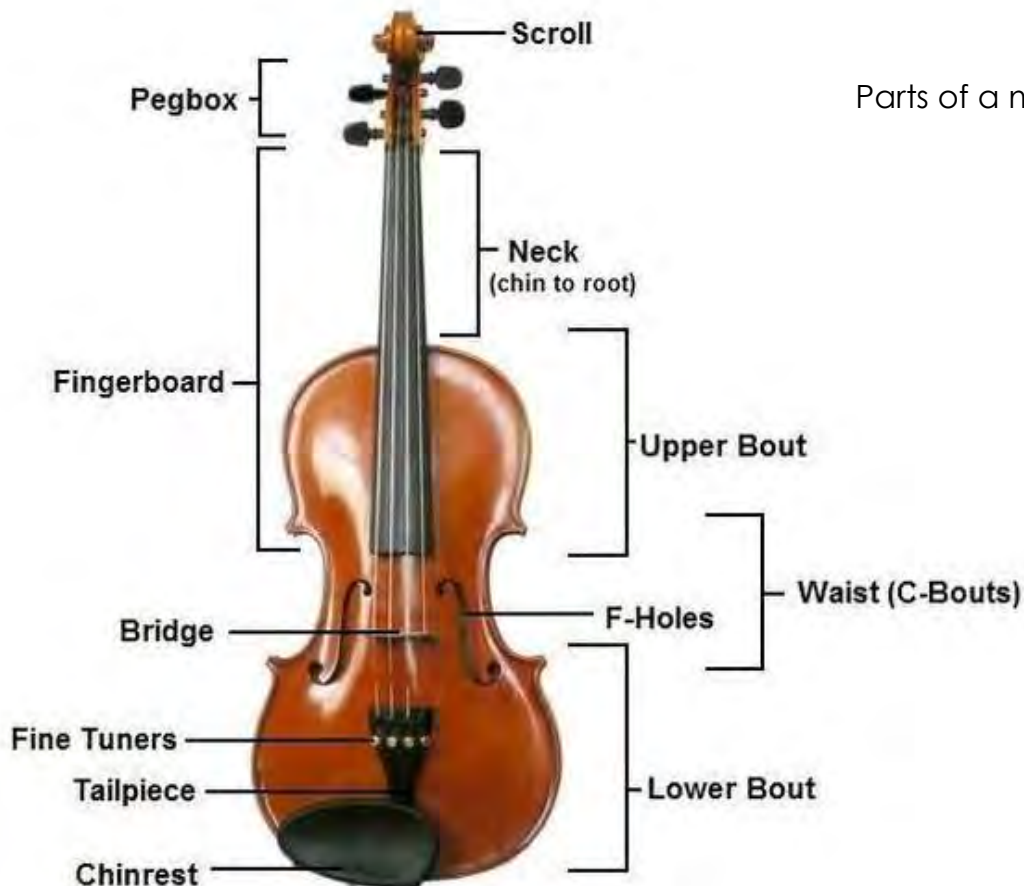
The String Family is the largest family of instruments in the orchestra.

How are sounds made?

- Instruments in the string family are made of hollowed out wood to allow sound to vibrate within them.
- The strings on the strings are usually made of nylon or steel.
- Most members of the string family have only four strings.
- A musician produces music on string instruments by either plucking the strings by finger or drawing a bow across the strings.

Who's a part of the String Family?:

- The strings family is made of 4 main instruments; violin, viola, cellos & double bass.
- The shapes of these instruments are very similar but they are each different sizes and are designed to make different types of notes.



Parts of a modern Violin



String Family

- **Violin**—The violin has a lovely tone that can be soft and expressive or exciting and brilliant.
- **Viola**—The viola is tuned lower than the violin. It is slightly larger and has lower and deeper tone than the violin.
- **Cello**—The cello's full name is violoncello. The cello is much larger than the violin and held between the musician's knees. The cello has a rich mellow tone.
- **Bass**— The largest of the string family is the bass, sometimes called the double bass or string bass. This instrument must be played while standing and has a very deep and rich tone.
- **Harp**—the harp is very different than the rest of the string family. The harp has about 45 strings and is only played by plucking the strings. The harp also has 7 pedals at the bottom like a piano to help it make additional notes.



Violin

Viola

Cello

Double
Bass

Harp



Percussion Family

The word Percussion literally means "the hitting of one body against another." The percussion instruments are an international family, with ancestors from the Middle East, Asia, Africa, the Americas and Europe representing musical styles from many different cultures.

How are sounds made?

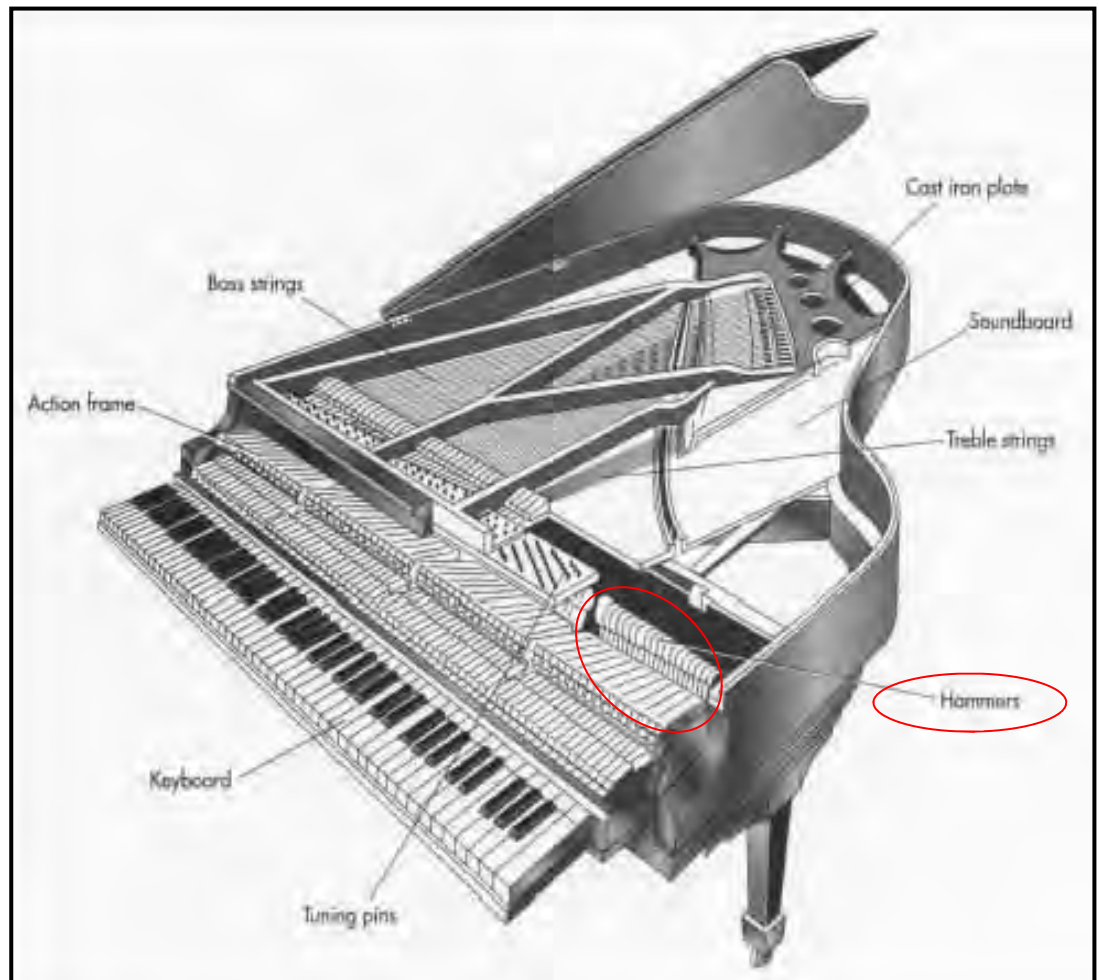
- Instruments in the percussion family are played by being struck, shaken, or scraped.

Who's a part of the Percussion Family?:

- The percussion family includes the snare drum, cymbals, bass drum, tambourine, triangle, timpani, xylophone, chimes, and piano.

Parts of a Piano

The piano is part of the percussion family because it uses hammers to make sounds. The hammers are controlled mechanically and strike the strings when the player's fingers press the piano keys





Percussion Family

- The **tambourine** is a shallow, handheld drum made of a circular wooden frame with a calfskin or plastic drumhead stretched across the top. The tambourine has small discs called jingles set into its circular frame which produce sound when the tambourine is shaken or struck.
- The **cymbals** are made of two large, slightly concave brass plates. They are fitted with leather hand straps and are shaped so that when they are crashed together, only the edges touch.
- The **snare drum** has two calfskin or plastic drumheads stretched tightly over a hollow metal frame. When this drum is struck on the top head, the snares produce a characteristic sharp rattling sound as they vibrate against the bottom head.
- Mozart added the **bass drum** to the orchestra in 1782. Constructed like a snare drum, but without snares, the bass drum is much larger and is played on its side, so that either head may be struck.





Percussion Family

- The **triangle** is made from a small round steel tube, and is played by striking it with a steel beater.
- **Timpani** are made of a large copper bowl with a drumhead made of calfskin or plastic stretched across the top. When struck, timpani produce a specific pitch that is determined by the drum's size.
- The **xylophone** is an instrument made of hardwood bars in graduated lengths set horizontally on a metal frame. Striking the bars with hard mallets produces a bright, sharp sound.
- The **chimes** are an instrument consisting of a set of 12 to 18 metal tubes hung from a metal frame. The chimes, are struck with a mallet and sound like church bells when played.





Brass Family

This family of instruments (also known as the horn family) can play louder than any other in the orchestra and can also be heard from far away. In the past these horns were made of wood, tusks, animal horns or shells. Today, the instruments are made entirely of brass.

How are sounds made?

- Brass Family instruments produce their sound by the player buzzing his/her lips while blowing air through a cup- or funnel-shaped mouthpiece.
- The mouthpiece connects to a brass tubing ending in a bell.
- The shorter the tubing length, the smaller the instrument, and the higher the sound.
- The longer the tubing length, the larger the instrument, and the lower the sound.

Who's a part of the Brass Family?:

- The brass family includes the trumpet, French horn, trombone, and tuba.

Parts of a French horn



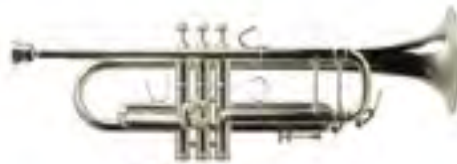


Brass Family

- The **trumpet** is the highest sounding member of the brass family. The player presses the three valves in various combinations with the fingers of the right hand to obtain various pitches.
- The mouthpiece of the **trombone** is larger than that of a trumpet, and gives the instrument a more mellow sound. Instead of valves, the trombone has a slide which can extend up to 9 feet to reach different pitches.
- The **tuba** is made of 16 feet of tubing. It has the lowest sound in the brass family.
- The **French horn** is made of 12 feet of tubing wound into a circle. The player creates clear and mellow sounds by pressing valves with their left hand and by moving their right hand inside of the bell.



French Horn



Trumpet



Trombone



Tuba



Extension Activities





Making Music Move

Activity Summary

Composers and choreographer, musicians and dancers, share lots of vocabulary. In these classroom activities, students will explore musical terms through movement and collaborate to create their own musical dances.

Learning Objectives

By the end of these activities, students will be able to:

- 1) Describe and demonstrate the difference between beat and rhythm;
- 2) Define the terms and demonstrate movement that reflects Largo, Adagio, Moderato, Andante, Allegro and Largo tempi;
- 3) Demonstrate movement that accelerates and decelerates;
- 4) Define and demonstrate movement big and small movement that reflects crescendo and decrescendo.
- 5) Demonstrate self-control while moving through space;
- 6) Demonstrate teamwork in movement activities.

Activity 1: Beat and Rhythm

- 1) Have students keep a steady, moderate beat by clapping their hands. Explain that this represents a 4/4 meter. Repeat for 3/4 meter by having students slap their thighs for the down beat and clap two times for the upbeats (slap, clap, clap).
- 2) Once the 4/4 beat is steady, divide the class in half. One group maintains the steady beat, while the other creates a rhythm within that beat (e.g. the ta-ta-ti-ti-ta clapping rhythm used to quiet the classroom is done within 4 clapping beats). Have students take turns creating varied rhythms that exist within 4 beats. Can they use more than just their hands? Snapping, stomping, slapping, vocal sounds? This can be done in a call and response format. One student creates a rhythm, the others copy.
- 3) Switch groups. And experiment with the 3/4 meter.

Activity 2: Tempo

- 1) Using the 4/4 or 3/4 rhythms established above, introduce musical terms that denote speed (See Appendix A). Hold up the tempo cards and have them change their clapping speed accordingly.
- 2) When they have demonstrated an understanding of the terms, have the students stand up and use their whole body. You can start in personal space using non-locomotor movements. And then progress to general space using locomotor movements. This can be done with recorded music in a stop and go format. When the music stops, dancers freeze (or break—caesura), and the teacher calls out the next tempo. When the music starts again, the dancers have to demonstrate the stated tempo, *not the tempo of the music*.



Making Music Move

Activity 3: Changing Tempi

- 1) Once students can maintain a consistent **tempo**, the next challenge is to steadily speed up (**accelerando**) or slow down (**ritardando**).
- 2) Introduce the terms and practice with the 4/4 and 3/4 clapping beats.
- 3) When they have demonstrated understanding of the terms, have students try using their whole body. Music can play quietly in the background, start the students at **largo** or **presto**, then call out **accelerando** or **ritardando**. You can count backwards from 8 or a larger number depending on how quickly you want the change to occur. Vary the number for a challenge.
- 4) Variation: Split the group in half. One group maintains the beat, while the other moves through space. When the teacher calls out **accelerando** or **ritardando**, the “musicians” have to speed up or slow down. The dancers respond to what they hear. Switch groups.

Activity 4: Changing Volume with Your Body

- 1) Introduce the dance concepts big/small. Have students practice making small movements in their seats. Call out body parts. Repeat with big movements.
- 2) When the students have demonstrated self-control and understanding of this concept seated, try it standing. Start with **non-locomotor** movements in personal space, and then progress to **locomotor** movements in general space.
- 3) Try alternating big and small. Call out small, and have the dancers move through the space small. When the music stops, they have to freeze in a small shape. Repeat with big.
- 4) When the students demonstrate understanding of this concept, introduce the terms **piano**, **forte**, **crescendo** and **decrescendo**. Experiment getting louder and softer with the initial 4/4 and 3/4 clapping beats.
- 5) Ask the students how this can relate to big and small movement. Starting seated, have students practice small/piano movements, big/forte movements, and gradually increase or decrease the size of their movements.
- 6) Move onto personal space, and then general space movements. You can have music playing. Call out piano, and the students will make small movements. When you call out crescendo and count backwards from 8, the students have to increase the size of their movements over time. Repeat with forte/decrescendo.
- 7) Variation: As above, split the group in half. One group demonstrates changing volume through clapping, while the other demonstrates this through big/small movement. Switch groups.



Making Music Move Activity Cards

CRESCENDO



DECRESCENDO



ACCELERANDO

RITARDANDO



Making Music Move Activity Cards

FORTE

f

PIANO

p

CAESURA

//



Making Music Move Activity Cards

ADAGIO

MODERATO

ALLEGRO



Making Music Move Activity Cards

LARGO

ANDANTE

PRESTO



Draw It Out

What was your favorite instrument family? Draw what you remember from the *Young Person's Guide to the Orchestra*.



Learn More





Glossary

Accelerando - an indication to gradually increase the tempo of a song until otherwise noted

Allegro - a quick, lively tempo

Andante – to move at a walking pace

Baton – the tool a conductor uses to direct an orchestra or band

Choreographer - the person who makes up the steps that the dancers do in the performance

Composer- the person who makes up the music that the dancers move to in the performance.

Conductor– the person who directs the musicians during the performance

Crescendo - a gradual increase in loudness in a piece of music

Curtain call - the bow dancers take at the end of a performance.

Decrescendo - a gradual decrease in loudness in a piece of music

Duration - how long you can hear the sound

Intensity - loud or soft

Largo - In a very slow tempo

Orchestra - a large group of musicians who play together on various instruments

Pitch– indicates how low or high a note sounds depending on how slowly or quickly the sound vibrates

Pointe shoes – a ballet shoe with a hard tip worn by women that allows them to dance on the tips of their toes

Presto - executed at a rapid tempo

Ritardando - gradually becoming slower

Tempo - the speed at which a passage of music is or should be played

Timbre - the quality of sound that makes it distinct from any other



Costume Rendering
for *Young Person's Guide
to the Orchestra*
Designs by Holly Hynes



Fantastic Feet

Ballet dancers use 5 positions of the feet when they dance. Their legs are turned out, meaning their toes point to the side instead of the front. Men and women use the same positions.



**First
Position**



**Second
Position**



**Third
Position**



**Fourth
Position**



**Fifth
Position**

Try doing all 5 positions. Which one is the hardest for you to do?



All About Arms



First Position



Second Position



Third Position



**Fourth
Position**



**Fifth
Position**

Try making all 5 positions.
Can you keep your back straight while you do them?



Houston Ballet History

The mission of Houston Ballet is to inspire a lasting love and appreciation for dance through artistic excellence, exhilarating performances, innovative choreography and superb educational programs.

Houston Ballet Foundation was formed in 1955 as an academy for nurturing talented dance students with dreams of professional dancing. In 1969, the professional company was founded and drew upon the strength of the Houston Ballet Academy.

In 1976, Ben Stevenson, former director of the National Ballet of Washington D.C., Principal Dancer and Ballet Master with the London Festival Ballet, was hired and served as Artistic Director until 2003. Through his exceptional leadership and direction, Houston Ballet developed a broad repertory including both classical and contemporary works as well as an Academy with a first-rate professional training school.

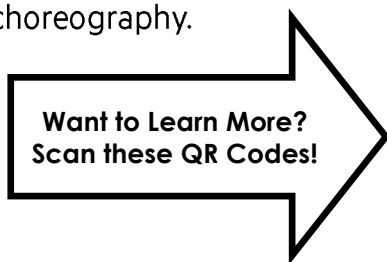
In 1987, the company moved into its new performing home, the magnificent Wortham Theater Center, a facility with which few performing arts houses in the world can compare.

In July 2003, the acclaimed Australian choreographer Stanton Welch assumed the artistic leadership of Houston Ballet, now America's fifth largest ballet company. Mr. Welch has transformed Houston Ballet by raising the level of classical technique and infusing the company with new energy, drive and vision. He continues to introduce new and existing works by distinguished choreographers, and continues to attract some of the world's best coaches to work with the Houston Ballet dancers.

In 2011, Houston Ballet moved into its new home, the Margaret Alkek Williams Center for Dance. With over 70,000 square feet and a bridge connecting it to the Wortham Theater Center, it is the largest facility dedicated to professional dance in North America.

In 2023, Julie Kent joined Stanton Welch as Artistic Director. Ms. Kent had an illustrious career as a Principal Dancer with American Ballet Theatre, dancing many lead roles, including the original cast of Stanton Welch's *Clear*. Ms. Kent served as Artistic Director of the Washington Ballet from 2016-2023.

Today, the Houston Ballet continues to delight and inspire audiences through artistic excellence and innovative choreography.



HoustonBallet.org



Wikipedia.org



TEKS Addressed

§112.11. Science, Kindergarten

(6) Force, motion, and energy. The student knows that energy, force, and motion are related and are a part of their everyday life

(A) use the five senses to explore different forms of energy such as light, heat, and sound

§112.39. Physics, High School

(7) Science concepts. The student knows the characteristics and behavior of waves.

(C) compare characteristics and behaviors of transverse waves, including electromagnetic waves and the electromagnetic spectrum, and characteristics and behaviors of longitudinal waves, including sound waves

§117.109. Music, Grade 2

(1) Foundations: music literacy. The student describes and analyzes musical sound. The student is expected to:

(B) identify instruments visually and aurally;

(C) use known music terminology to explain musical examples of tempo, including presto, moderato, and andante, and dynamics, including fortissimo and Pianissimo

(6) Critical evaluation and response. The student listens to, responds to, and evaluates music and musical performances. The student is expected to:

(A) begin to practice appropriate audience behavior during live or recorded performances;

(B) recognize known rhythmic and melodic elements in simple aural examples using known terminology;

(C) distinguish between rhythms, higher/lower pitches, louder/softer dynamics, faster/slower tempos, and simple patterns in musical Performances



TEKS Addressed

§117.112. Music, Grade 3

(1) Foundations: music literacy. The student describes and analyzes musical sound.

(B) categorize and explain a variety of musical sounds, including those of woodwind, brass, string, percussion, and instruments from various cultures;

(C) use known music symbols and terminology referring to rhythm; melody; timbre; form; tempo; and dynamics, including mezzo piano and mezzo forte, to identify musical sounds presented aurally

§117.211. Theatre, Middle School

(5) Critical evaluation and response. The student responds to and evaluates theatre and theatrical performances. The student is expected to:

(B) develop simple oral and written observations about the visual, aural, oral, and kinetic aspects of theatrical performances such as informal playmaking or formal theatre;

§114.22. Languages Other Than English Levels I and II

(4) Comparisons. The student develops insight into the nature of language and culture by comparing the student's own language and culture to another.

§117.205. Dance, Middle School

(5) Critical evaluation and response. The student makes informed personal judgments about dance and the meaning and role of dance in society.

§117.306. Dance, High School

(5) Critical evaluation and response. The student makes informed personal judgments about dance and the meaning and role of dance in society.