Dear Fellow Educators,

This year, we have three great youth concerts prepared for the young musicians of Dallas and beyond! We are excited to get started with our Symphony Strings concert, which features the string family. From the iconic Eine Kleine Nachtmusik by Mozart, to riveting solo violin feature in Piazzolla’s Four Seasons, Summer, to a stunning piece by Florence Price, this concert is created to engage and educate your curious students.

We hope this guide provides some structure for you and your class as you prepare for your journey to see the Dallas Symphony Orchestra in action. We look forward to seeing you at the Meyerson this October!

Musically yours,

Jennifer Guzmán, Thomas & Roberta Corbett Director of Education
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214-871-4019

To contact sales, please reach out to Sabrina Siggers at s.siggers@dalsym.com or (682) 477-1511

To see our up-to-date Meyerson safety protocol, please view here:

VISIT THE DALLAS SYMPHONY ORCHESTRA’S EDUCATIONAL WEB SITE:
www.DSOkids.com

Activities for Symphony Strings teacher’s guide were prepared by the Dallas Symphony Orchestra’s Curriculum Development Team: Linda Arbolino, Jane Aten, Tony Driggers, Jen Guzman, Sarah Hatler, and Kevin Roberts.

This volume of the teacher’s guide was produced and edited by Dallas Symphony Orchestra Education Staff Members Sarah Hatler and Jen Guzman. Materials in this teacher’s guide can be photocopied for classroom use. If you have any questions about the concerts or material in this guide, please email Sarah Hatler at s.hatler@dalsym.com.
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YouTube Playlist

We have moved from physical CD's to a digital playlist in an effort to make the music as accessible as possible for you. In the following lessons of this Teacher Guide, the playlist will be referenced and can be found here:

https://youtube.com/playlist?list=PLIn1z_eTQBcEikdcrDqG79f10uJ4OHx1g&si=r-JtoErpxPhJ4hgu

The tracks in this playlist include repertoire that will be performed at the Youth Concert you and your students will be watching, so we encourage you to listen to these pieces in advance to familiarize yourselves with the music.

1. Mozart: Eine Kleine Nachtmusik, movement 1
2. Perkinson: Sinfonietta No. 2, movement 3 Alla Burletta
3. Piazzola: Four Seasons, summer
4. Price: Andante moderato, 1st section
5. Stravinsky: Apollon Musagete, coda
6. Tchaikovsky: String Serenade, movement 4

Concert Etiquette

1. The use of cameras and recorders is prohibited.
2. Please turn off cellular phones and any other electronic devices.
3. Students and teachers should remain in their seats for the entire concert.
4. Restrooms are located on all levels and should be used for urgent needs only. If students must visit the restroom, please have an adult accompany them.
5. Students not maintaining acceptable standards of behavior will be asked to leave, and may jeopardize their school’s future attendance at DSO events.
Concert Guidelines for Teachers

Before the Concert
Please contact Sabrina Siggers, (s.siggers@dalsym.com or 214-981-2974) at least one week prior to your Youth Concert experience if you need to confirm or make changes to a reservation. Inform her if you do not need to use our bus parking. Please prepare your students by using materials in this book. Students should be briefed on concert etiquette in advance.

Please contact Sabrina Siggers 214-981-2974 at least one week before the concert if your group includes any students or teachers with special needs, including wheelchairs, or if you are in need of infra-red headsets for the hearing impaired.

The Day of the Concert

Before leaving school, please allow time for students to visit the restroom. Learn your bus driver’s name and be sure you can recognize him/her.
Plan to arrive at the Meyerson at least thirty minutes before concert time.

Upon Arrival at the Meyerson

If you arrive by bus, please DO NOT UNLOAD BUSES UNTIL YOU ARE GREETED BY A DSO STAFF MEMBER. Also, please be sure you and your driver have been given matching numbers by a DSO staff member.
Check in with a volunteer in the main lobby; a volunteer will guide your group to your seating area. (Seating sections are assigned on the basis of group size).
All students should be in their seats at least five minutes before the concert time.
No food or drink, including chewing gum, is permitted in the concert hall.

During the Concert

The use of cameras and recorders is prohibited.
Please turn off cellular phones and any other electronic devices.
Students and teachers should remain in their seats for the entire concert.
Restrooms are located on all levels and should be used for urgent needs only. If students must visit the restroom, please have an adult accompany them.
Students not maintaining acceptable standards of behavior will be asked to leave, and may jeopardize their school’s future attendance at DSO events.

After the Concert

Please remain in your seats until your school is dismissed.
Upon dismissal, listen carefully and follow instructions for departing the building.

Back at School

Refer to this guide or www.DSOkids.com for follow-up activities.
Student letters/artwork expressing reactions to the concert are appropriate. Email to S.Hatler@dalsym.com.

Mailing Address:
Attn: Youth Concerts
Dallas Symphony Orchestra
2301 Flora St., Schlegel Administrative Suites
Dallas, TX 75201

Please contact Sabrina Siggers 214-981-2974 at least one week before the concert if your group includes any students or teachers with special needs, including wheelchairs, or if you are in need of infra-red headsets for the hearing impaired.
Who’s Who

Maurice Cohn joined the Dallas Symphony Orchestra as Assistant Conductor in the Marena & Roger Gault Chair in the 2021/22 concert season. He has served as Cover Conductor for the Atlanta Symphony Orchestra, Assistant Conductor for the National Music Festival, and as a guest assistant at Oberlin Conservatory. A 2020 recipient of the Solti Foundation U.S. Career Assistance Award, Maurice also spent two summers as a conducting fellow at the Aspen Music Festival, where he received the Robert J. Harth Conducting Prize (2019) and the Aspen Conducting Prize (2021). Upcoming engagements include an opera premiere with Chicago’s Zafa Collective and a return to the Aspen Music Festival as Assistant Conductor for the 2022 season. He recently received an M.M. from the Eastman School of Music, where he worked frequently with the Eastman orchestras and OSSIA New Music Ensemble. Maurice holds a B.M. in cello performance from Oberlin Conservatory and a B.A. from Oberlin College, where he studied history and mathematics.

A native of Berkeley, California, violinist Nathan Olson began his appointment as Co-Concertmaster with the Dallas Symphony Orchestra in September 2011. He has served as Adjunct Faculty at Southern Methodist University and the University of North Texas College of Music. A graduate of the Cleveland Institute of Music’s prestigious Concertmaster Academy, Nathan studied with William Preucil and Paul Kantor. Currently Concertmaster of the Breckenridge Music Festival, he has participated in the Mainly Mozart Festival, the Bravo Vail Music Festival and the Amelia Island Chamber Music Festival.

An enthusiastic chamber musician, Nathan is a member of the Baumer String Quartet, whose debut recording will be coming out in the next year. The BSQ serves on faculty at the Crowden Chamber Music Workshop and the Monterey Chamber Music Workshop, and has held residencies at several institutions, including Southern Methodist University, the University of North Texas, the University of South Florida, and the University of South Dakota.

A winner of the Joseph and Elsie Scharff prize in violin at CIM, Nathan has performed as soloist with the Dallas Symphony Orchestra, the Canton Symphony Orchestra, the Breckenridge Music Festival Orchestra, the Cleveland Pops Orchestra, CityMusic Cleveland, the San Francisco Chamber Orchestra, the Berkeley Symphony, the Oakland East Bay Symphony and the Lexington Bach Festival Orchestra.

In recent seasons, Nathan has appeared as Guest Concertmaster with the symphony orchestras of Pittsburgh, Cincinnati, Toronto, Omaha, and Tucson, and as Principal Second Violin with the St. Paul Chamber Orchestra. While completing his Bachelors degree at the Cleveland Institute of Music, Nathan earned minors in both Mathematics and Music Theory.

Composer Biographies

Wolfgang Amadeus Mozart (1756-1791) was no doubt the greatest child star that ever lived. He was traveling all over Europe playing music by the time he was six. Because of his constant travels, Mozart eventually learned to speak fifteen different languages. He wrote his first sonata for the piano when he was four and composed his first opera when he was twelve! Mozart could compose anywhere - at meals (he loved liver dumplings and sauerkraut), while talking to friends, while playing pool and even while his wife was having a baby. He composed very quickly and wrote huge amounts of music. It would take over 8 days to play all of his music, one piece after the next, without stopping. One famous piece that he wrote was Variations on “Twinkle, Twinkle Little Star.”

During his lifetime, Mozart was very well-known but spent money faster than he could earn it. He was poor and in debt when he died of kidney failure at the age of 35 and was buried in an unmarked grave. Mozart is considered by some to be the greatest composer who ever lived. While most composers specialize in certain kinds of pieces, Mozart created masterful works for almost every category of music - vocal music, concertos, chamber music, symphonies, sonatas, and opera.

Coleridge-Taylor Perkinson (June 14, 1932, Manhattan, New York City or possibly (unconfirmed) Winston-Salem, North Carolina – March 9, 2004, Chicago) was born to a musically active mother who named him after the black British composer Samuel Coleridge-Taylor. He attended the High School of Music and Art in New York City and continued on to study composition at the Manhattan School of Music where he received his bachelor’s and master’s degrees. It was there that his interest in jazz and popular music outside of the classical music world began.

He co-founded the Symphony of the New World in 1965 and later became its music director. He continued to compose ballets and other pieces that combined elements of classical counterpoint and jazz and blues while being the music director for the Alvin Alley American Dance Theater and Jerome Robbins’s American Theater Lab. He also composed and conducted music for television, theater, and documentary films.
Astor Piazzolla (1921-1992) was born in Argentina to Italian immigrant parents. He spent much of his childhood in New York City, and he learned to take care of himself on the dangerous streets while his parents worked hard to provide for him. He was exposed to classical and jazz music and enjoyed listening to his father’s tango records as a child. Piazzolla composed his first tango in 1932 and then began taking music lessons later that year. At 17 years old, he moved to Argentina and played the bandoneon, an instrument played in a similar way to the accordion and found in typical tango ensembles, in what would become one of the most famous tango orchestras in the country. He continued to arrange and play bandoneon or piano in various tango orchestras, and he studied composition and orchestration with Alberto Ginastera for five years.

Piazzolla won a composition contest in 1953 in Buenos Aires which allowed him to study on a grant from the French government with famed composer Nadia Boulanger in Paris. The following year, he and his wife left their two children behind in Argentina with his parents and moved to Paris where he studied composition and counterpoint with Boulanger, a great influence on his later tango writings. He moved between New York City and Buenos Aires throughout his adult life and created various tango ensembles wherever he went which included Octeto Buenos Aires, the Jazz Tango Quintet, Nuevo Octeto, and Conjunto 9. He is celebrated today for his unique style of composition, Nuevo Tango, which is a fusion of traditional tango with elements of jazz including extended harmonies and improvisation and classical music including the use of passacaglia or repeating bass lines.

Florence Price (Florence Beatrice Smith, 1887-1953]) was born in Little Rock, Arkansas, in 1887 – only 22 years after the official end of the American Civil War. Born to a mixed-race family, her father was one of only a dozen or so African American dentists practicing in the United States at that time. He even had the Arkansas state governor as a patient! Her mother, who guided most of Florence’s early musical training, was an elementary school teacher, worked in a restaurant, sold real estate, and was a secretary for a loan and trust company. Like many famous composers, Florence showed musical talent at a very early age. She had her first piano performance at age four and had her first composition published at 11. By age 14, she had graduated as valedictorian from high school. She then attended New England Conservatory and majored in piano, organ, and composition. In order to avoid racial discrimination, she put her birthplace as Pueblo, Mexico, on her application and claimed to be of Mexican descent. She graduated in 1906 with honors with both a teaching certificate as well as a degree in organ performance. In 1910, she moved to Atlanta where she taught at the historically black college, Clark Atlanta University.

In 1912, Florence married a lawyer named Thomas Price and moved back to Little Rock. But in the next several years, life for African Americans grew steadily worse to the point where the Price family no longer felt safe residing in the town. So in 1927, they moved from Little Rock to Chicago.

While in Chicago, Price attended the Chicago Musical College, Chicago Teacher’s College, University of Chicago, and American Conservatory of Music, where she studied languages and liberal arts subjects, as well as music. Additionally, she continued to study with the leading composition teachers in Chicago. Price never stopped learning! In 1931, she and her husband divorced. As a single mother with two daughters, she taught music lessons and had to live with friends to make ends meet. She eventually moved in with her student and friend, Margaret Bonds. Through Bonds, she met the poet Langston Hughes, and became friends with the singer Marian Anderson who frequently sang Price’s song arrangements at her concerts.

Together, Price and Bonds began entering contests with their musical compositions. They soon achieved national recognition for their compositions and performances. In 1932, they each entered the Wanamaker Foundation Awards. Price’s composition won first prize with her Symphony in E Minor, and third prize for her Piano Sonata, earning $500. (Bonds won first in the song category). The next year, the Chicago Symphony performed her Symphony in E Minor. This was the first composition by an African American woman to ever be played by a major orchestra. As her fame spread, she soon had her music played by other orchestras. Price wrote many extended works for orchestra, chamber works, art songs, works for violin, organ anthems, piano pieces, spiritual arrangements, four symphonies, three piano concertos, and a violin concerto. She also composed music for silent films and arranged music for radio. While planning a trip to Europe, Price suffered a stroke and died on June 3, 1953. Price’s music reveals her Southern roots and can mostly be identified as American in style. Like other American composers such as George Gershwin, Aaron Copland and William Grant Still, her music incorporated rhythms and syncopation of African-American spirituals and the blues. Even though she was trained in the European ‘classical’ tradition, she was very effective in incorporating that with her other musical influences.

In his long life, Igor Stravinsky (1882-1971) saw tremendous changes — and, in his music, he created great change. Stravinsky’s father, an opera singer, wanted him to become a lawyer, so when he went to college he studied law and music at the same time. The music for the ballet The Firebird made him famous as a composer, and he gave up law. When his piece The Rite of Spring was first played in public, it caused a riot — the audience made so much noise arguing about the music that the orchestra was drowned out!

In 1925 Stravinsky first visited the United States. He finally moved here in 1939 and later became an American citizen. He continued to write music, including a polka for the Ringling Brothers Circus elephants to dance to and an arrangement of The Star Spangled Banner — which no one liked! Because he created music that was different from anything that had been heard before, many people believe his music will be remembered hundreds of years from now.
Strategies for Mindful Listening
Adapted from Settle Your Glitter - A Social Emotional Health Curriculum by Momentous Institute 2015

What is Mindful Listening?
Mindful Listening helps students choose on which sound their attention should be focused. When a student trains his/her brain to concentrate on specific sounds, sensory awareness is heightened. Monitoring the auditory experience, and noting what they focus on and respond to, helps build self-management and self-awareness skills.

How do I practice mindful listening with my students?
Play a piece (or excerpt) from an upcoming DSO Youth Concert and have the students:
• Sit up tall like a mountain and think of the spine as a stack of coins.
• If seated in a chair or bench, feet are flat on the floor or hanging calmly and still. If seated on the floor, make sure legs and feet are still.
• Hands are resting gently on the lap or knees.
• Eyes are softly closed or their gaze directed downward.

What do I say during the mindful listening activity?
Say things such as, “As you listen, remember to breathe in and out deeply and focus on the music.” “What pictures do you see in your mind?” “Does it tell a story?” “Notice how your body feels (in the chair, on the floor…etc.).” “What colors do you see?” “What images?” “If this music was found in a movie, what would be happening?” “What mood does the music evoke?” “How does this music make you feel?”

What do I do if my students have trouble with mindful listening?
This type of activity is very personal and takes a lot of practice. If students seem like their attention is faltering, say, “If your mind wanders, that is ok – that’s what minds do…just bring your attention back to the music. Notice how your body feels right now – at this very moment. Again, let your mind see the colors, pictures and moods in the music.”

How does the mindful listening end?
After listening for 1-2 minutes, lower the volume of the music slowly and say, “When you are ready, slowly open your eyes.”

What now?
Talk about all of the student responses. Remember that there are no “wrong” answers – use open-ended questions to expand the activity. Try using these questions in response to your students:
• What did you hear that made you think of that?
• Tell me more about what in the music made you feel (happy, sad, lonely, afraid, etc.).
• Can you add more details to that?
• What did the composer/musician do to make you think of that?

Extension
This mindful practice can be used every day. Have relaxing and calm music playing as your students enter the room each day. Have them learn the mindful listening procedure and eventually it will become natural. This is a great way to start their music learning day – mind sharp, body relaxed, and brain ready for learning.

Piotr “Peter” Tchaikovsky (1840-1893) was the son of a wealthy mining engineer stationed in Russia. Although Piotr was taken care of by a French governess, Fanny Duback, he remained very close to his mother. At the age of six, he began piano lessons. When he was eight, he was sent to a boarding school and missed his family greatly. His mother died when he was 14, and this loss brought great sorrow to Piotr. By 19, he completed his law studies and was appointed to a job with the Ministry of Justice. The pull of music never left him and he consequently gave up his government job and turned to the study of music at the age of 23. After two years of study he was appointed a professor of composition at the St. Petersburg Conservatory and began writing music in earnest. His Piano Concerto in B-flat is one of the most famous pieces ever written for the piano. His music was very popular and he was in great demand as a conductor. In 1891, he traveled to America where he was invited to conduct the New York Symphony at the opening of Carnegie Hall. Tchaikovsky died from cholera in St. Petersburg on November 6, 1893.
The Violin and its Family

Learning Objective
Students will identify the instruments in the string family by common characteristic, sound production, and timbre.

Vocabulary
Timbre – the quality of a sound made by a particular voice, sound source, or musical instrument that distinguishes it from any other voice, sound source, or instrument. The distinguishing “color” of the sound.
Riff – a short musical phrase showing off the sound of an instrument

Resources
- A violin, if available, to show students. Posters/pictures of the violin (page 11) and the entire string family, such as the Bowmar large instrument posters. (See your music specialist to borrow these from the music room).
- Aural and visual examples of each string instrument (violin, viola, cello, double bass, and harp) plus sound clip of each instrument playing “Twinkle, Twinkle Little Star” as well as a musical excerpt featuring that particular instrument found here on DSOKids.com
- DSO playlist, page 3

Pre-Assessment
Ask students if they can name a string instrument. Ask if any student has a brother or sister who plays a string instrument. If so, which one?

Teaching Sequence
1. Show the students a violin (if one is available). If not, show a photo or picture of a violin with parts labeled (page X). Tell the students that the violin is built much like a person: It has a body, it has shoulders. It has a neck, and even has a belly (the place under the strings on the body of the instrument.) The top where its head would be, is not called the head. It is called the “scroll” because of its beautiful, curled shape.
2. Ask a student how many strings they see. Tell the students that the strings attach at the tailpiece, travel up over the bridge and belly, up the long fingerboard to the pegs. The pegs look like ears sticking out, but they have an important job. The strings wrap around the pegs. It is the pegs job to tighten or loosen the strings so the sound produced will match with the sound of the orchestra.
3. Tell the students that a violin produces its sound by having the player pluck the strings or by using a bow to set the strings in vibration. The player creates the sound by plucking the strings or using a bow to make the strings vibrate.
4. Ask the students to listen to the sound of the violin as found online at DSOKids.com. Hear the timbre of the instrument as it plays “Twinkle, Twinkle Little Star” alone and then as it plays a “riff.” What adjectives can be used to describe this sound?
5. Tell the students that this instrument belongs to a family of similar instruments, the String Family. Show a photo or poster of the String Family. Ask the students to identify the characteristics which are common to all string instruments. (All are made of wood. All have strings. All, except the harp, have a common shape. In all the instruments, sound can be produced by plucking the strings).
6. Listen to the sound of each of the instruments as found online at DSOKids.com. Read the information given for each instrument. Look at the string family photo/poster. Notice the size of each instrument. What connection can be made between the sound of the instrument and its size? (The longer/bigger the instrument, the lower the sound).

Culminating Sequence
Pass out the orchestra seating chart, page 14. Ask the students to locate and identify the string instruments by coloring them blue. As the class is shading in their orchestra seating chart, play one of the excerpts from the upcoming concert repertoire list.

Evaluation
Did the students identify the instruments in the string family by common characteristics, sound production, and timbre?

TEKS
FA.M.4.b.5B
FA.M.5.b.1B
FA.M.5.b.5D
Instruments of the Orchestra

1. Stringed instruments
2. Woodwind instruments
3. Brass instruments
4. Percussion instruments

The Violin

- Chin rest
- Shoulders
- The Fingerboard
- The Bridge
- Belly
- Pegs
- Scroll
- Horse hair
- Wood
- The Bow

Courtesy of Music Bulletin Board
The Sounds of Strings

Learning Objective
Students will aurally identify bowed and plucked sounds on string instruments.

Vocabulary
Vibrate - to move rapidly back and forth
Bow - a stick strung with hairs used to play a string instrument

Resources
- SciShowKids “What is Sound?”
- Thick rubber band - one for teacher demonstration and one for each student
- Musilesson “Bowing (Arco) or Plucking (Pizzicato)”
- DSO playlist, page 3

Pre-Assessment
Ask students how sounds are made. Demonstrate, and let them hold their hands against their throats and make a loud sound. What do they feel? Explain that all sounds are made by something which vibrates, or shakes very fast, making waves that move through the air and reach our eardrums. The movement they feel in their throats is from the vibration of their vocal cords.
Ask whether they know about anything else that makes a sound by vibrating.

Teaching Sequence
1. Show the Youtube video from SciShowKids “What is Sound?”
2. Stretch a thick rubber band between your fingers and pluck it. Let students watch the vibration and listen for the sound. When the band is stretched tighter, the sound is higher; when it is less taut, the sound is lower.
3. If appropriate for your class, pair students and give each pair a rubber band. One student stretches the rubber band and the other plucks.
4. Tell the class that on violin, viola, cello, and double bass, the player produces the sound by making the strings vibrate. They can do this by pulling the bow hair across the string to set it in motion or by plucking the string.
5. Show the first two minutes of the YouTube video Musilesson Bowing (arco) and plucking (pizzicato). Let students describe the difference in the sounds produced.

Culminating Sequence
1. Let students listen (without visuals) to brief excerpts from Florence Price’s “Allegro moderato” and Perkinson’s “Ala Burletta.” After each hearing, challenge them to identify whether the sounds were made by bowing or plucking. (Although the “Ala Burletta” is primarily pizzicato, there are some bowed sounds).
2. Listen to the same excerpts with the visual, and confirm whether they correctly identified whether the string instruments were bowed or plucked.

Evaluation
Did students correctly identify the sounds of bowed or plucked string instruments?

TEKS
FA.M.K.b.1C
FA.M.1.b.1B
FA.M.2.b.1B
Learning Objective
Students will demonstrate an understanding that larger instruments have a lower sound and smaller instruments have a higher sound.

Resources
- Picture of the string family, pg. 20
- Instrument demos found on DSOKids.com
- DSO playlist, page 3

Pre-Assessment
Ask students to try and think of things in the world that are similar except for their size - not necessarily music related. (Examples could include plants, streets, books, houses, etc.) Suggest to students that different kinds of vehicles would be a good example to explore. Have the students generate a list of vehicles that vary in size. Examples could include SUVs, motorcycles, dump trucks, minivans, trains, etc. As students make suggestions, order them from largest on the left to smallest on the right. Be sure that a variety of different sizes are represented.

Teaching Sequence
1. Note to the students that the largest vehicles’ motors produce the lowest pitched sounds and that the smallest ones are the highest pitched. A monster truck or a train makes a much lower pitched sound than the VW Bug or a motorcycle. (Students may confuse high/low with loud/soft. The teacher should be aware of this in order to provide clarification if necessary).
2. Tell students that they will soon see a symphony concert in which the string family of the orchestra will be highlighted. Show students a picture of the string family and ask for volunteers from students to identify the different instruments and describe their sound.
3. Lead students to see that string instruments look similar except for their size.
4. Ask students to look at the relative sizes of the string instruments and decide where on the list, according to their sizes, they would put a bass? A cello? A viola? A violin? Tell students that string instruments are similar to vehicles in the sense that the largest is lowest and the smallest is highest.

Culminating Sequence
Play recorded examples of each of the string instruments from the concert selection available online on the DSOKids website. Help students to distinguish between the different string instruments from the relative lowness and highness of their sounds. As you play through the repertoire of the DSO youth concert, continue to reinforce the idea that big instruments sound lower and small instruments sound higher.

Evaluation
Did student responses demonstrate an understanding that larger stringed instruments sound lower and smaller stringed instruments sound higher?

TEKS
FA.M.4.b.1B
S.4.A/D
S.5.2A/F
S.5.6A/D
S.6.8B
Bass, cello, viola, violin
L to R
**Learning Objective**
Students will identify a soloist (one player) and the orchestra (many players) and tutti (soloist and orchestra together).

**Vocabulary**
Concerto- a musical composition for a solo instrument or instruments accompanied by an orchestra  
Tutti- all instruments playing together  
Solo- one instrument performing alone  
Listening map- a visual, sequential diagram of sounds or music

**Resources**
- Listening Map, pg. 26  
- DSO Playlist, pg. 3

**Pre-Assessment**
Tell the class that music is like a conversation. As an example, sing or say, “Hello, class,” and ask them to reply all together with, “Hello, [teacher name].” Explain what a concerto is using the definition above, and highlight how one solo instrument converses with the orchestra.

**Teaching Sequence**
1. Play a one minute and 40 second excerpt of Piazzolla’s Four Seasons, Summer, and ask the class to listen for the conversation between the soloist (in the pink dress standing in the center of the orchestra) and the orchestra. Please show the video so students have a visual attached with the audio.  
2. For a minute or so, pair students and ask them to share what they heard with their partner. Then bring the class back together and hear answers from a few students. While we want the students to hear the back-and-forth between violin and orchestra, students might be compelled to speak about the emotion of the music, the story that came to mind, or how it reminded them of a personal experience. Encourage this type of creative and open-minded thinking.

**Culminating Activity**
1. Distribute the Listening Map and introduce the concept to the class. Tell them that they will move the icons -- orchestra only, violin only, and orchestra/violin combined (violin icon on top of orchestra icon, “tutti”)-- into the boxes on the Listening Map based on what they hear. Distribute glue and scissors and ask students to cut out icons.  
2. Play the excerpt and instruct students to place icons on the paper without gluing as they listen to the excerpt. Give them a minute to consider their choices and then play the excerpt again.  
3. When everyone has the tiles in place, listen to the excerpt a third time as a class and ask them to hold up their selected icon at the appropriate moment. Pause the music at the moments of change between violin and orchestra and see if they pick the correlating icon to the key provided. Discuss any differences, asking students to justify their answers.  
4. Students glue the violin and orchestra icons to the Listening Map.

**Listening Map key for teachers**
The correct order of icons is:  
1. Beginning – 0:17: orchestra only  
2. 0:18 – 1:23: orchestra/violin combined  
3. 1:24 – 1:29: solo violin  
4. 1:29 – 1:35: orchestra/violin combined  
5. 1:35 – 1:40: solo violin
**Evaluation**
Can students hear and discuss the conversational nature of the music? Can students identify the difference between one solo instrument, the orchestra, and tutti, and justify their choices?

**Extension Activity**
Ask the students what they think the violin and orchestra are saying to each other. Do they think they are trying to decide what game to play? What to eat? Where they would like to go? How they feel? Ask students to pick a prompt and write one sentence of dialogue per icon.

**TEKS**
- FA.M.1.b.5C
- FA.M.1.b.6B-D
- FA.M.2.b.5B,C
- FA.M.2.b.6B-D
- FA.M.3.b.1B
- FA.M.3.b.6B-E
Piazzolla Listening Map

On the map below, show who is playing- violin, orchestra, or tutti.
Create Your Own Instrument

Learning Objective
Students will demonstrate an understanding that sound is created by vibration.

Vocabulary
Vibration - A rapid, repeating movement.

Resources
- Materials page for parents, pg. 32
- Materials for making kazoo and stringed instrument:
  - Shoe box/Cereal Box/Rigid small cardboard Box
  - Wrapping paper or paint
  - Scissors
  - Pushpins or small screws
  - Rubber bands
  - 2 pencils or popsicle sticks
  - Glue (Hot glue can be used if you have older students or if the teacher applies the hot glue)
  - Paper towel rolls
  - Wax paper
- Vibration video
- Kazoo Video demonstration
- String instrument video demonstration
- Mozart - Eine Kleine Nachtmusik by Ivy String Quartet

Pre-Assessment
Ask the student to close their eyes and focus on sounds they hear where they are (in the music room, at home, in the classroom, etc.)
Pair and share – have students discuss the things they heard (air conditioner, birds, wind, breathing, students moving, voices, etc.). Share with the group.

Then ask the students to close their eyes and listen to a piece of music:
Mozart - Eine Kleine Nachtmusik by Ivy String Quartet

Ask the student to close their eyes and focus on sounds they hear where they are (in the music room, at home, in the classroom, etc.)
Pair and share – have students discuss the things they heard (air conditioner, birds, wind, breathing, students moving, voices, etc.). Share with the group.
Say: “As you listen to this music, what sounds do you hear? What instruments do you hear? If students seem like their attention is faltering say, “If your mind wanders to other thoughts, that’s ok, just bring your mind back to the music. Notice how your body feels in the chair (or on the floor). Again, let your mind see the colors, and pictures in the music” After listening for 1-2 minutes, lower the volume of the music slowly and say, “When you are ready, slowly open your eyes.”
Teacher Lead Discussion – Students report what they heard. Remember that all appropriate answers are correct.
Use open-ended questioning so students are using metacognitive thinking (thinking about their thinking).

Teaching Sequence
Seeing the vibration/Feeling the vibration (This step can be omitted).
1. Tell the students that all the sounds they heard were create by vibration.
2. Ask the students to answer the question, “What is vibration?” Explain that vibration is a rapid and repeating movement.
3. Ask the students, “How can we see vibration?” Some answers might be – If you shake something, an earthquake, a plucked rubber band, etc.
4. Show the video about Vibrations.
5. Discuss what was seen.
6. Tell students, “Now we are going to feel the vibration.”
7. Create student kazoos. Watch demonstration video.
- Use a toilet paper roll or a trimmed paper towel roll
- Wrap with construction paper to give it more rigidity. That step can be omitted.
- Place a piece of wax paper at the end of the tube. (approximately 5” x 5”)
- Secure the wax paper to the tube with a rubber band.
- Make sure you tell students to hum into the tube not to blow air.
8. Ask, “Can you feel the vibration in your hand? In your lips? In your throat? On your fingers?”

Creating a string instrument
1. Tell the students that today we are going to create an instrument in which you can see, feel and hear the vibration. Stringed Instrument Demonstration
2. Students need a shoebox, paper towel roll, rubber bands, glue, scissors and 2 pencils for the project. Colored paper, wrapping paper, markers, paint, stickers can be added to make the instrument more decorative but are not necessary. (A parent note has been added in case you want to make this a family activity or a recyclable materials challenge).
   - Take shoe box and cut a hole in the center. The hole should not go all the way to the sides of the box.
   - Glue the paper towel tube to the top of the box to create the neck (this step can be left out). Cut slits down one side of the tube – About ½ inch. Do this on the whole end of the tube. Use glue to attach to one end of the box. Hot glue can be used for a more secure and quick attachment. Teacher should do this step or at least monitor closely.
   - To attach the rubber bands, you can simply wrap them lengthwise around the box or insert and hot glue pushpins or small screws on either side of the hole.
   - After dry, add rubber bands of various sizes and thickness.
   - Place a pencil under the strings (rubber bands) on each side of the hole to act as the bridge.
   - Pluck the strings to see and hear the result.
3. Ask:
   a. Why is there a hole in the guitar?
   b. What happens to the string (rubber band) when you pull it tight? Or when the rubber band is loose?
   c. Why are there pencils holding the strings off the guitar body?
   d. What happens to the string when you pluck it?
   e. What happens when you touch the rubber band after it is plucked?

Culminating Activity
Create a display of all the stringed instruments. Some display topics might be the following.
- Symphony Strings
- What is vibration?
- Sound Engineers at work
- Good, Good, Good Vibrations.

Evaluation
Were the students able to explain how their instruments created sound?
Were the students able to define vibration?

TEKS
FA.M.4.b.5B
FA.M.5.b.1B
FA.M.5.b.5D
Parents,

We will be making a stringed instrument out of recyclable materials. Please find the following items for our activity.

1. Shoe box, small cardboard box, oatmeal container or cereal box
2. Paper towel tube
3. Various sizes of rubber bands.
4. Other Materials needed – glue, 2 pencils, wrapping paper or paint, scissors

Padres,

Haremos un instrumento de cuerda con materiales reciclables. Encuentre los siguientes elementos para nuestra actividad.

1. Caja de zapatos, caja de cartón pequeña, recipiente de avena o caja de cereal
2. Tubo de toallas de papel
3. Varios tamaños de bandas de goma.
4. Otros materiales necesarios: pegamento, 2 lápices, papel de regalo o pintura, tijeras
Flat Beethoven!
Cut out Ludwig van Beethoven and take him with you on all of your adventures! Be sure to snap a picture of Flat Beethoven in his new environs and send them to Sarah Hatler at s.hatler@dalsym.com.
Your picture could be featured on DSOKids.com.
Get creative!

Did You Know?
- Beethoven was born on December 16, 1770 in Bonn, Germany.
- At age 12, he earned a living by playing organ and composing.
- One of his favorite foods was macaroni and cheese.
- His Third Symphony, Eroica, was so original that it inspired many others to change the way they wrote music.
- He is famous for his unique and innovative musical style.
- Many say that Beethoven had a nasty temper and unpleasant personality.
- He was deaf when he composed his Ninth Symphony and never got to hear it performed live.

SYMPHONY STRINGS

We love to see you enjoying our Dallas Symphony concerts. Remember this special moment by drawing and captioning your favorite part of this youth concert, Symphony Strings, in the frame on this page.
If you would like your picture to be shared on DSOKids.com, please ask your teacher or parent to email our drawing to Sarah at S.Hatler@dalsym.com or mail to:
Sarah Hatler
Dallas Symphony Orchestra
2301 Flora St.
Dallas, TX 75201
Full STEAM Ahead

Check out our virtual Full STEAM Ahead series to find out how making music is connected to science, technology, engineering, and math. You’ll hear DSO musicians performing and speaking about their musical experiences, and see interesting visual demonstrations of sound.

Full STEAM Ahead was founded by women business leaders from AT&T, Capital One, NCJW Dallas and Texas Instruments to promote arts education and equal opportunity for girls in the world of STEAM.

About the Morton H. Meyerson Center

One of the world’s greatest concert halls, the Meyerson Symphony Center was made possible through the efforts of the citizens of Dallas. Over ten years were spent in the planning and construction of the Meyerson, which opened on September 6, 1989.

World-renowned architect and major arts supporter I.M. Pei was chosen to design the building, working closely with acoustician Russell Johnson. Pei’s design combines basic geometric shapes, with a rectangle (the concert hall) set at an angle within a square (the outer walls). Segments of circles also enclose the building.

In the concert hall, every detail was designed to make the sound or acoustics as perfect as possible for orchestral music. For example, the heating and air conditioning system is located in a different building so that no vibrations from the machinery can be felt in the concert hall. Acoustical features include:

- Double sets of doors at all entrances
- Terrazzo and concrete floors
- Mohair fabric on the seats
- Walls covered with African cherrywood
- Sound-absorbing curtains which can be drawn over the walls
- A reverberation chamber with 72 acoustical doors used to “tune” the hall
- The canopy over the stage, which can be raised and lowered to enhance the sound

Fun Facts about the Meyerson!

The Meyerson Symphony Center has:

- 2,056 seats
- 30,000 sq. ft. of Italian travertine marble
- 22,000 limestone blocks from Indiana
- 35,130 cubic yards of concrete
- 918 panels of African cherrywood around the concert hall
- 216 panels of American cherrywood around the stage
- 62 acoustical curtains
- 4 canopies with a combined weight of 42 tons
- 72 concrete acoustical doors, each weighing up to 2.5 tons
- 50 bathrooms
- An 85 foot high ceiling in the concert hall
- A 40 foot hollow area under the stage to increase resonance
  - An organ with 4 keyboards, 61 keys, 32 pedals, 84 ranks, 65 stops and 4,535 pipes
The Dallas Symphony Orchestra is grateful to

For their comprehensive support of the DSO Education Programs.

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