A TRIP TO THE MOON
LA Phil’s Symphonies for Schools
Study Guide Grades 3 - 6

WALT DISNEY
CONCERT HALL
For more information about the Los Angeles Philharmonic Education Department visit our website www.laphil.com/education
Questions, comments? Write us at education@laphil.org

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INTRODUCTION

We are thrilled to welcome you to the LA Phil’s Symphonies for Schools concerts. It is a little-known fact that the LA Phil has been providing free school-day concerts to LA schoolchildren since our first season in 1919. In March, when your students walk into Walt Disney Concert Hall to experience a live performance with the LA Phil, they are at the center of a tradition that includes hundreds of thousands of children over nearly 100 years.

WELCOME TO A TRIP TO THE MOON

This year, the LA Phil brings you a new opera by a living composer. Inspired by Georges Méliès’ 1902 film A Trip to the Moon, Grawemeyer-winning composer Andrew Norman’s whimsical opera tells the story of a band of bumbling astronomers as they explore the moon, try to fix their broken rocket, and interact with a mysterious race of moon people who are facing a perilous threat of their own. In the concert hall and classroom, students will make connections between music, opera, film, science fiction, and language. They’ll even create their own opera!

Exploration:
How do composers tell stories through children’s opera?

Key Objectives:
With opera at the center of the conversation, students will:

• Think about the history of film
• Discover the technical elements of film
• Explore the connection between music and language
• Create their own language using sounds
• Learn about opera and the people needed to produce an opera
• Develop imagination while creating and performing their own opera
• Explore the genre of science fiction
• Consider how sound is used in science fiction films and shows
• …and hear a living composer introduce them to his work!
As you can imagine, engaging students in high quality music learning experiences and increasing support for music education at the school level is something that we are very passionate about here at the LA Phil. This Study Guide is designed specifically to support the work of Classroom Teachers, as you engage your students in active participation through music making; critical thinking; and creating their own language, opera, and soundtrack to a science fiction world.

**Elements of the Program**

- One Professional Development Workshop for Participating Teachers
- A Study Guide that addresses the CA Standards in music, Common Core, and other academic subjects
- Four lessons, with student worksheets
- Discussion, writing, and interactive activities for each lesson
- Pre and post-concert reflection activities

**Steam Integration**

Lessons are designed to approach musical concepts and opera from an interdisciplinary framework. Lessons address the history of film, the technical elements of opera, and science fiction to integrate STEAM learning into the classroom.

**Key Vocabulary**

*See full definitions in the appendix*

- accompaniment
- adagio
- allegro
- beat
- cadenza
- composer
- concerto
- conductor
- crescendo
- decrescendo
- dynamics
- ensemble
- finale
- form
- forte
- fortissimo
- harmony
- improvisation
- instrumentation
- jazz
- largo
- mezzo
- moderato
- movement
- orchestra
- orchestration
- ostinato
- philharmonic
- pianissimo
- piano
- pitch
- presto
- rhythm
- score
- solo
- sound wave
- symphony
- tempo
- texture
- timbre
- theme and variations
- vibration

**Options for Classrooms with Special Needs**

- Students can participate in the music activities in a variety of ways. You know your students best, so allow them to participate in ways that will help them feel the most successful.
- Encourage students to engage with the music using tangible objects, such as handmade or simple percussion instruments.
- Allow time for students to engage deeply with each activity and repeat steps as often as necessary. Use one-step directions and visuals as often as possible to help students understand the concepts.

**Standards Addressed**

This Study Guide is designed specifically to support the work of Classroom Teachers. We address the National Core Arts Standards for Music, the California Visual and Performing Arts Standards, as well as college and career readiness skills addressed in Common Core, resulting in a carefully crafted roadmap for successful instruction.
A BRIEF HISTORY OF THE LOS ANGELES PHILHARMONIC

The Los Angeles Philharmonic was founded in 1919 by William Andrews Clark, Jr., a 42-year-old amateur musician, lawyer, and art patron.

Ninety-four musicians met for their first rehearsal Monday morning, October 13, 1919. Eleven days later, on Friday, October 24, the Philharmonic played its first concert at Trinity Auditorium, before a capacity audience of 2,400 who were hearing the largest orchestra that had ever appeared in Los Angeles. That concert was led by the orchestra’s first Music Director, Walter Henry Rothwell, who remained in that post until his death in 1927. Since then, the orchestra has had ten subsequent Music Directors:

- Georg Schnevoigt (1927-1929)
- Artur Rodzinski (1929-1933)
- Otto Klemperer (1933-1939)
- Alfred Wallenstein (1943-1956)
- Eduard van Beinum (1956-1959)
- Zubin Mehta (1962-1978)
- Carlo Maria Giulini (1978-1984)
- Esa-Pekka Salonen (1992-2009) and
- Gustavo Dudamel (2009-present)

The Philharmonic gave concerts in Philharmonic Auditorium from 1920 through the end of the 1963/64 season. In 1964, the orchestra moved to the Dorothy Chandler Pavilion of the Los Angeles Music Center. In October 2003, the Philharmonic opened its new concert hall, Walt Disney Concert Hall, in downtown Los Angeles, across the street from the Dorothy Chandler Pavilion. Designed by renowned architect Frank Gehry, the Hall is among the most modern concert facilities in the world. In addition to being an extraordinary venue in which to hear beautiful music, it is an international tourist attraction.

The Los Angeles Philharmonic today

It takes about 100 people to manage the Los Angeles Philharmonic all year round. The Los Angeles Philharmonic Association presents the finest in orchestral and chamber music, recitals, new music, jazz, world music and holiday concerts at two of the most remarkable places anywhere to experience music — Walt Disney Concert Hall and the Hollywood Bowl. In addition to a 30-week winter subscription season at Walt Disney Concert Hall, the Los Angeles Philharmonic presents a 12-week summer festival at the legendary Hollywood Bowl, summer home of the Los Angeles Philharmonic and home of the Hollywood Bowl Orchestra. In fulfilling its commitment to the community, the Association’s involvement with Los Angeles extends to educational programs, community concerts and children’s programming, ever seeking to provide inspiration and delight to the broadest possible audience.
GUSTAVO DUDAMEL
MUSIC & ARTISTIC DIRECTOR
Walt and Lilly Disney Chair

As an internationally renowned symphonic and operatic conductor, Gustavo Dudamel is motivated by a profound belief in music’s power to unite and inspire. Currently serving as Music Director of the Simón Bolívar Symphony Orchestra of Venezuela and Music & Artistic Director of the Los Angeles Philharmonic, the impact of his leadership extends from the greatest concert stages to classrooms, cinemas and innovative digital platforms around the world. Dudamel also appears as guest conductor with some of the world’s most famous musical institutions: in 2017/18, he tours Europe with the Berlin Philharmonic, and takes the Vienna Philharmonic on a tour of the Americas, with concerts in New York’s Carnegie Hall, Mexico City’s Bellas Artes, Bogota’s Teatro Mayor; Santiago De Chile’s Teatro Municipal, as well as Buenos Aires’ famed Teatro Colon. This season also sees Dudamel’s return to the opera house, conducting a new production of Puccini’s La Bohème at the Opéra National de Paris.

Now entering his ninth season as Music & Artistic Director, the Los Angeles Philharmonic has dramatically expanded the scope of its community outreach programs, including most notably his creation of Youth Orchestra Los Angeles (YOLA), influenced by the philosophy of Venezuela’s admired El Sistema, which encourages social development through music. With YOLA and diverse local educational initiatives, Dudamel brings music to children in under-served communities of Los Angeles. These programs have in turn inspired similar efforts throughout the United States, as well as in Sweden (Hammarkullen), Scotland (Raploch) and around the world.

For the Los Angeles Philharmonic under Dudamel, not only is the breadth of audiences reached remarkable, but also the depth of programming. LA Phil programs continue to represent the best and boldest in new music, including numerous premieres and commissions by composers such as John Adams, Philip Glass, Bryce Dessner, Arvo Pärt, Sofia Gubaidulina, Esa-Pekka Salonen and Kaija Saariaho. A series of concerts focusing on Mozart’s late works kicked off the season, as well as Festival CDMX, featuring the music and artists of Mexico. The Winter and Spring of 2018 pay tribute to the 100th birthday of Leonard Bernstein, with performances of Mass and Chichester Psalms. The season also features a Schumann festival, including a new production of Das Paradies und die Peri, staged by Peter Sellars. In early 2018, the LA Phil also tours the United States and Europe.
Now in his nineteenth year as Music Director of the El Sistema project in Venezuela, Dudamel remains committed to his vision that music unites and transforms lives. He advocates the combination of music and the arts as essential to the education of young people around the world. Dudamel’s commitment to young people and music is fueled by his own transformative experience in Venezuela’s El Sistema, a program initiated by José Antonio Abreu in 1975. Further afield, he has worked on numerous occasions with El Sistema Japan and with the Sendai Youth Philharmonic in the wake of the 2011 tsunami. He actively supports projects such as Big Noise in Scotland, Vienna’s Superar program, SerHacer in Boston, and El Sistema Sweden, with whom he initiated an international “Orchestra of the Future” comprising young people from five continents, to perform together on the occasion of the 2017 Nobel Prize Concert.

Recordings, broadcasts and digital innovations are also fundamental to Dudamel’s passionate advocacy for universal access to music. Dudamel has independently produced an all-Wagner recording available exclusively for download, a complete set of Beethoven symphonies for digital learning, and a broadcast of two Stravinsky ballets with the Simón Bolívar Symphony Orchestra in cooperation with the Berlin Philharmonic’s Digital Concert Hall.

Gustavo Dudamel is one of the most decorated conductors of his generation. He received the Americas Society Cultural Achievement Award in 2016, and the 2014 Leonard Bernstein Lifetime Achievement Award for the Elevation of Music in Society from the Longy School of Music. He was named Musical America’s 2013 Musician of the Year, one of the highest honors in the classical music industry, and was voted into the Gramophone Hall of Fame.

Born in 1981 in Venezuela, access to music for all has been the cornerstone of Gustavo’s philosophy both professionally and philanthropically. Inspired by his early musical and mentoring experiences, the Gustavo Dudamel Foundation, a registered charity, was created in 2012 with the goal of promoting access to music as a human right and catalyst for learning, integration, and social change.

For more information about Gustavo Dudamel, visit his official website: www.gustavodudamel.com. You can find more about The Gustavo Dudamel Foundation at http://www.dudamelfoundation.org
You’re about to visit Walt Disney Concert Hall, the home of the Los Angeles Philharmonic. In these next few pages, you’ll learn a bit about this incredible building — about the people who helped build it, about the building itself, and about some things to look for on the day of your visit. We hope you have a great time at Walt Disney Concert Hall!

The people behind the building

Lillian Disney: You might be wondering about the name: Walt Disney Concert Hall. Is the Hall a part of Disneyland? Do they show Disney movies there? The building is not a part of Disneyland. The building got its name from Lillian Disney, the wife of Walt Disney, who made a generous donation in 1987. She wanted to build a concert hall as a gift to the people of Los Angeles, and in memory of her late husband’s love of music.

Frank Gehry: Frank Gehry is an architect who lives here in Southern California. Gehry believes that a building is also a sculpture, that it is a work of art that people move through and experience. Gehry’s buildings often transform different ideas and shapes. In creating Walt Disney Concert Hall, Gehry met with Lillian Disney. The two had conversations about what the new building should look like. Gehry loves to sail boats, and a lot of his buildings are inspired by the ocean. Ultimately, his design for Disney Hall incorporated images of fish, wind, and ships.

“She wanted to do something for the community where they (Lillian and Walt) met, married and spent their lives.”
— Diane Disney Miller, on her mother, Lillian Disney

Did you know?
To create plans for the building, the architect used CATIA, a three-dimensional computer modeling program originally designed for the aerospace industry. Gehry likes to sail boats, and his design is inspired by boats, the ocean, and fish. When you get to Walt Disney Concert Hall, look at the outside of the building. Look at how the building curves. Gehry wanted the building to look like the sails of a ship being filled with wind.
There are over 6,000 steel plates covering the façade of the Hall. The plates shine in the California sun but they’re also meant to suggest the scales of a fish. Because of the curving shape of the building, almost no two of the plates are the same. When they arrived on the site, each plate had a number on it telling the construction workers where exactly it should go.

Vocabulary Word
ARCHITECT: a person who creates the plans used to build a building.

Frank Gehry: Frank Gehry is an architect who lives here in Southern California. Gehry believes that a building is also a sculpture, that it is a work of art that people move through and experience. Gehry’s buildings often transform different ideas and shapes. In creating Walt Disney Concert Hall, Gehry met with Lillian Disney. The two had conversations about what the new building should look like. Gehry loves to sail boats, and a lot of his buildings are inspired by the ocean. Ultimately, his design for Disney Hall incorporated images of fish, wind, and ships.

“I just fell in love with this lady.”
— Frank Gehry, on Lillian Disney

“You can design and create and build the most wonderful place in the world. But it takes people to make the dream a reality.”
— Lillian Disney

Arriving at WDCH
Like people, buildings have personalities. Think of a building you know: a store you go to, your school, your home. How would you describe that building’s personality? Serious and cold? Warm and happy? In designing Walt Disney Concert Hall, Gehry wanted to create a warm, open environment. He feels that buildings should be “good neighbors.” But how does an architect do that?
When you get to Walt Disney Concert Hall, look at the building from the outside. There’s a restaurant and a gift shop. There are many different ways to get inside. From the sidewalk, you will notice that the walls are made of glass so you can see inside. The building is open to the public during the day. These are all ways that the architect created a space that is open and inviting.
Entering the Hall

Once you enter Walt Disney Concert Hall, here are a few things to look for:

Tree columns: Spread throughout the Hall are several columns that look like trees with spreading branches. These “tree columns” aren’t just for decoration. They also do a lot of work. The columns carry vents for air conditioning. They also contain steel girders that help support the weight of the building. Try to find branches that look like they’ve been cut. There are lights hidden inside these branches that help to light the hall at night.

Wood panels: Look at the wooden panels that line the walls. This kind of wood comes from a Douglas Fir tree. The architect chose this kind of wood because it looks like the wood on a viola or cello.

The Mancini Staircase: Try to find the staircase. In creating this staircase, the architects wanted a place where you can see and be seen! They imagined women in fancy gowns sweeping up the curve of the stairs. One of the designers calls it “The Cinderella Staircase.”

Entering the Auditorium

There is a lot to see in the entryway, the gardens, and from the street level. But the reason Walt Disney Concert Hall is here is to give you a great place to hear live music. A lot of care went into making sure that the acoustics in the hall are as good as they can be.

The Hall has what is called a “vineyard” structure. A vineyard is a field in which grapes are grown. In a vineyard hall, the hall is divided into different terraces or areas. This means that there are a lot of vertical (or up-and-down) walls that reflect sound back into the hall, allowing you to hear the orchestra better. For Gehry, the inside of the building was just as important as the outside. Remember, Gehry is a sailor. Look at the interior of the building, at the curving sides of the auditorium. Do they remind you of the sides of a ship?

As you go into the auditorium, here’s something to look for: The “Lillian” Carpet: Take a look at the brightly colored carpet. What does the pattern remind you of? The pattern is called “Lillian” after Lillian Disney, and is inspired by the flowers she loved so much.

“The most valued advantage of the vineyard configuration is that every seat is as close to the stage as could possibly be, resulting in a sense of intimacy and connectedness between the audience and the music created on stage.”
— Yasuhisa Toyota, Acoustician, Walt Disney Concert Hall
The Pipe Organ
When you get into the Hall, look above the stage floor at that strange jumble of wooden and metal columns. What you’re seeing are the pipes of Walt Disney Concert Hall’s pipe organ. Some people have said that the organ pipes look like a box of French fries—can you see that? In general, the organ has been called “The King of Instruments” for its power and ability to mimic different parts of the orchestra. But the principle behind the organ is really quite simple; an organ works much like a flute—air is forced through a pipe, which then vibrates. The pitch (how high or low a note is) depends on how large the pipe is. You can create this effect by taking a water bottle, filling it up partway, and blowing across the mouth of the bottle. The air for this organ is supplied by three mechanical blowers, with the combined power of thirteen horses. The organ is the product of a true collaboration—it was designed by Los Angeles designer Manuel Rosales, along with Frank Gehry, and was built in Germany by a company called Glatter-Götz Orgelbau.

Did you know?
INTERESTING FACT: The Disney Hall organ is made up of 6,134 pipes, ranging in size from a telephone pole to a pencil.

The Garden
If you have a moment before or after the concert, make sure you take a walk through the garden. The garden is a perfect place to meet with friends and to talk about the concert you’re seeing. The garden was designed to change colors throughout the year, shifting from pink to red to green as the seasons change.

From the garden, look to the north. You can see the Dorothy Chandler Pavilion across the street. This is where the Philharmonic used to play. On a clear day you can see the San Gabriel Mountains, and maybe even the Hollywood sign. If you look south, try to spot a building with a mosaic pyramid on top of it. This is the Los Angeles Central Library.

The Rose Fountain: One thing to look for is the fountain. This fountain is shaped like a rose, Mrs. Disney’s favorite flower. The petals of the rose are covered in broken pieces of Delftware. Delftware is a kind of pottery from Holland that Mrs. Disney loved to collect. Workers broke hundreds of tiles and vases into pieces and created a mosaic covering the fountain. See if you can find the piece of pottery with this inscription: “A Rose for Lilly.”

Exposed structure: Want to see what’s behind all those steel panels? Go to the north end of the garden, and find a metal staircase on your right. In this part of the building, Gehry left part of the building’s skeleton exposed so you can see. Go and look at the steel girders that attach the panels to the building.
A Trip to the Moon is an opera with many forebears. It is a melodrama, both in the specific, historically-rooted sense of the word as it was used in the 18th and 19th centuries (to denote a stage work that combines spoken recitation with musical accompaniment), and in the more general, emotionally heightened and dramatically sensationalized sense that the word has accumulated since then.

A Trip to the Moon is also a retro-futurist sci-fi adventure opera, and it was inspired by three interrelated sources of 19th century science fiction. The first is the Jules Verne 1865 novel De la terre à la lune (fun fact: Verne spent his bohemian youth working in a Parisian theater writing light libretti for his friends while birthing literary science fiction on the side). The second—from which I borrowed a few useful plot points—is the 1875 Offenbach operetta Le voyage dans la lune, a work that took the scientifically-grounded, technically-oriented Verne and launched it into the realms of fantasy and grand stage spectacle by adding royal romances, magical elixirs, dancing snowflakes, and an erupting moon volcano to the brew. The third inspiration is the seminal 1902 silent film by Georges Méliès, also called Le voyage dans la lune, that you will see bits of tonight. Drawing on elements from the Offenbach, the Verne, and other contemporaneous depictions of moon travel, Méliès created his own unique mélange of what were by then familiar moon tropes — the arguing astronomers, the smoking forge, the bullet-shaped rocket, the tribunal of mysterious moon people, and the hurried journey home.

In addition to being a melodrama and a sci-fi adventure opera, my piece is, more importantly, a community opera. There are roles in this piece for world-class professional musicians, and there are roles that require no musical training whatsoever, that literally anyone can sing (or whack, or whirl). It is a piece that is inherently flexible with regard to the size and skill set of its forces (the premiere in Berlin featured 200 volunteer singers and an orchestra made up of school children alongside members of the Philharmonic), and it is a piece that was conceived of as an experience as much for the wide variety of people making it as it is for the audience watching it. In this sense it can trace its lineage back through works like Benjamin Britten’s Noye’s Fludde and Bertold Brecht’s Lehrstücke all the way to the medieval morality and mystery plays of western Europe. Like my opera, these works were allegorical, archetypal, participatory, and ritualistic in nature, to be made by a community for a community.

But aside from all those historical antecedents, A Trip to the Moon is first and foremost a children’s opera, to be performed by and for children. And while I’m thrilled to get to share the latest version of this piece with all of you tonight, I feel it won’t truly find its home until next week, when it goes in front of 7,600 of Southern California’s most discerning 4th and 5th graders as part of the Philharmonic’s Symphonies for Schools program.

A special thanks goes to Simon Rattle, who commissioned the piece as part of the community outreach initiatives of the Berlin Philharmonic and the London Symphony, to Opera Philadelphia, who gave me a deep dive into the practicalities of opera-making in the 21st century, and to the many gifted and generous storytellers who helped guide and shape my ideas for the work: Royce Vavrek, Mark Campbell, Ela Baumann, Yuval Sharon, and Brian Selznick.
ABOUT THE COMPOSER

Andrew Norman
b. 1979

A graduate of Yale and the University of Southern California, Andrew Norman is a Los Angeles-based composer of orchestral, chamber, and vocal music. He counts among his teachers Martha Ashleigh, Donald Crockett, Stephen Hartke, Stewart Gordon, Aaron Kernis, Ingram Marshall, and Martin Bresnick.

Andrew’s work draws on an eclectic mix of sounds and notational practices from both the avant-garde and classical traditions. He is increasingly interested in story-telling in music, and specifically in the ways non-linear, narrative-scrambling techniques from other time-based media like movies and video games might intersect with traditional symphonic forms. His distinctive, often fragmented and highly energetic voice has been cited in the New York Times for its “daring juxtapositions and dazzling colors,” in the Boston Globe for its “staggering imagination,” and in the L.A. Times for its “audacious” spirit and “Chaplinesque” wit.

Andrew’s symphonic works have been performed by leading ensembles worldwide, including the Los Angeles and New York Philharmonics, the Philadelphia and Minnesota Orchestras, the BBC, Saint Louis, Seattle, and Melbourne Symphonies, the Orpheus, Saint Paul, and Los Angeles Chamber Orchestras, the Tonhalle Orchester, the Royal Concertgebouw Orchestra, the Orchestre National de France, and many others. Andrew’s music has been championed by some of the classical music’s eminent conductors, including John Adams, Marin Alsop, Gustavo Dudamel, Simon Rattle, and David Robertson.

Andrew’s chamber music has been featured at the Bang on a Can Marathon, the Chamber Music Society of Lincoln Center, the Wordless Music Series, the CONTACT! series, the Ojai Festival, the MATA Festival, the Tanglewood Festival of Contemporary Music, the Green Umbrella series, the Monday Evening Concerts, and the Aspen Music Festival. In May of 2010, the Berlin Philharmonic’s Scharoun Ensemble presented a portrait concert of Andrew’s music entitled “Melting Architecture.”

Andrew was named Musical America’s 2017 Composer of the Year. He is the recipient of the 2004 Jacob Druckman Prize, the 2005 ASCAP Nissim and Leo Kaplan Prizes, the 2006 Rome Prize, the 2009 Berlin Prize and a 2016 Guggenheim Fellowship. He joined the roster of Young Concert Artists as Composer in Residence in 2008 and held the title “Komponist für Heidelberg” for the 2010-2011 season. Andrew has served as Composer in Residence with the Boston Modern Orchestra Project and Opera Philadelphia, and he currently holds that post with the Los Angeles Chamber Orchestra. Andrew’s 30-minute string trio The Companion Guide to Rome was named a finalist for the 2012 Pulitzer Prize in Music, and his large-scale orchestral work Play was named one of NPR’s top 50 albums of 2015, nominated for a 2016 Grammy in the Best Contemporary Classical Composition category, and won the 2017 Grawemeyer Award for Music Composition.

Andrew is a committed educator who enjoys helping people of all ages explore and create music. He has written pieces to be performed by and for the young, and has held educational residencies with various institutions across the country. Andrew joined the faculty of the USC Thornton School of Music in 2013, and he is thrilled to serve as the new director of the LA Phil’s Nancy and Barry Sanders Composer Fellowship Program for high school-age composers.

Andrew recently finished two piano concertos, Suspend, for Emanuel Ax, and Split, for Jeffrey Kahane, as well as a percussion concerto, Switch, for Colin Currie. Upcoming projects include a symphony for the Los Angeles Philharmonic and collaborations with Jeremy Denk, Jennifer Koh, Johannes Moser, yMusic, the Berlin Philharmonic, and the London Symphony.

Andrew’s works are published by Schott Music.
Yuval Sharon
b. 1979

Described by The New York Times as “opera’s disrupter in residence,” director Yuval Sharon has been creating an unconventional body of work that seeks to expand the operatic form.

He founded and serves as Artistic Director of The Industry in Los Angeles, an acclaimed company devoted to new and experimental opera that has brought opera into moving vehicles, operating train stations, and various “non-spaces,” such as warehouses, parking lots, and escalator corridors. Sharon conceived, directed, and produced the company’s acclaimed world premieres of *Hopscotch*, *Invisible Cities*, and *Crescent City*. He also devised and directed the company’s two “performance installations”: *In C* at the Hammer Museum and *Nimbus* at Walt Disney Concert Hall.

He is the recipient of the 2014 Götz Friedrich Prize in Germany for his production of John Adams’ *Doctor Atomic*, originally produced at the Staatstheater Karlsruhe and later presented in Seville’s Teatro de la Maestranza. Sharon also directed a landmark production of John Cage’s *Song Books* at the San Francisco Symphony and Carnegie Hall with Joan La Barbara, Meredith Monk, and Jessye Norman. His most recent production was Peter Eötvös’ *Three Sisters at the Wiener Staatsoper*, which lead Opernwelt to call him “one of the most interesting arrivals on the musical landscape.” His production of *Cunning Little Vixen*, originally produced at the Cleveland Orchestra, will be the first fully-staged opera ever presented in Vienna’s historic Musikverein in October 2017.

Sharon currently has a three-year residency at the Los Angeles Philharmonic, where his projects will include newly commissioned works, site-specific installations, and performances outside the hall. Major productions include an original setting of *War of the Worlds*, performed both inside and outside the concert hall simultaneously (Fall 2017); a staging of Mahler’s *Song of the Earth* with Gustavo Dudamel at the LA Phil (Spring 2018); *Lohengrin* for the Bayreuth Festival (Summer 2018); and *Magic Flute* for the Berlin Staatsoper Unter den Linden (February 2019).
ABOUT THE CONDUCTOR

Teddy Abrams
b. 1987

An unusually versatile musician, Teddy Abrams is the widely-acclaimed Music Director of the Louisville Orchestra and Music Director and Conductor of the Britt Orchestra, as well as an established pianist, clarinetist, and composer. A tireless advocate for the power of music, Abrams continues to foster interdisciplinary collaboration with organizations including the Louisville Ballet, the Center for Interfaith Relations, Oregon Shakespeare Festival, the Speed Art Museum, and the Folger Shakespeare Library.

Teddy’s 2017/18 season includes debuts with the Los Angeles, Malaysian, and Rhode Island Philharmonic orchestras; the Milwaukee, Fort Worth, Princeton, and Omaha Symphony orchestras; and the St. Paul Chamber Orchestra. Recent guest-conducting highlights include engagements with the San Francisco, Houston, Vancouver, Colorado, and Phoenix Symphony orchestras; Florida Orchestra; the Louisiana and New Mexico Philharmonic orchestras; and at the Kennedy Center. He has enjoyed a long-standing relationship with the Indianapolis Symphony, and recently conducted them with Time for Three for a special recorded for PBS. He served as Assistant Conductor of the Detroit Symphony in 2012-2014.

From 2008 to 2011, Abrams was the Conducting Fellow and Assistant Conductor of the New World Symphony (NWS) and conducted many performances, including subscription concerts and numerous other full and chamber orchestra events. Abrams has conducted the NWS in Miami Beach, Washington, D.C., and at Carnegie Hall, and he recently returned to conduct the NWS on subscription with Joshua Bell as soloist.

An accomplished pianist and clarinetist, Abrams has appeared as a soloist with a number of orchestras – including play-conducting the Ravel Piano Concerto with the Jacksonville Symphony in Fall 2013 – and has performed chamber music with the St. Petersburg String Quartet, Menahem Pressler, Gilbert Kalish, Time for Three, and John Adams, in addition to annual appearances at the Olympic Music Festival. Dedicated to exploring new and engaging ways to communicate with a diverse range of audiences, Abrams co-founded the Sixth Floor Trio in 2008. Together, they founded and direct Garden Music, the music festival of the world-renowned Fairchild Tropical Garden in Miami; they continue to tour regularly throughout the U.S.

Abrams studied conducting with Michael Tilson Thomas, Otto-Werner Mueller, and Ford Lallerstedt at the Curtis Institute of Music, and with David Zinman at the Aspen Music Festival; he was the youngest conducting student ever accepted at both institutions. Abrams is also an award-winning composer and a passionate educator — he has taught at numerous schools throughout the United States. His 2009 Education Concerts with the New World Symphony (featuring the world premiere of one of Abrams’ own orchestral works) were webcast to hundreds of schools throughout South Florida.

Abrams performed as a keyboardist with the Philadelphia Orchestra, won the 2007 Aspen Composition Contest, and was the Assistant Conductor of the YouTube Symphony at Carnegie Hall in 2009. He has held residencies at the La Mortella music festival in Ischia, Italy and at the American Academy in Berlin. Teddy was a proud member of the San Francisco Symphony Youth Orchestra for seven seasons, and graduated from the San Francisco Conservatory of Music with a Bachelor of Music, having studied piano with Paul Hersh.

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A TRIP TO THE MOON

THE LESSONS
LESSON 1: SILENT FILM

Objective: In this lesson, students will learn about silent film and its history, followed by a brief introduction to filmmaker Georges Méliès and A Trip to the Moon. The lesson focuses on the rocket launch scene from the film. By the end of the lesson, students will understand the role of music in silent film, and how music impacts characters’ actions and feelings in silent film. They will also have the opportunity to write their own ending to A Trip to the Moon, and to create a percussive accompaniment to a scene in the movie.

Teacher-led overview

What is a silent film?
When did silent moviemaking start?
This section can be led as a discussion with the teachers asking questions of the students — some of them may know what a silent movie is already.

Silent film is a movie with no sound and no speaking. Silent films were mostly made between 1895 and 1930. When people began making movies, the video cameras they used were unable to capture sound. Because of this, actors had to make their gestures and movements more extreme in order to communicate what would have been communicated through words. However, when an audience went to see a silent movie, it would be accompanied by live music so that the story would be brought to life. Sometimes, a piano player would improvise – or make up on the spot – the music to go along with the film.

Who was Georges Méliès?
What is A Trip to the Moon?
Feel free to modify or shorten this discussion as needed, especially if instruction time is limited. It is more important for students to view the film and complete the activities.

Georges Méliès was a French film director who is most famous for his silent movies. He was one of the first directors to use special effects in his movies. Méliès lived from 1861 to 1938. He was born in Paris and had two brothers. Throughout his childhood, Georges had a keen interest in acting, the theater, and magic. After finishing high school, he joined the family business, but continued to dream about a life on the stage and attended many performances, including magician shows. After his father died, he bought a theater in Paris and used it to experiment with stage magic and special effects. This led to an interest in film, and he began to make his first silent movies in 1896. During his lifetime, he made over 500 films, although many of them were quite short.

George Méliès made the silent movie A Trip to the Moon in 1902. The movie is about a group of scientists, led by Professor Barbenfouillis, who want to explore the moon. Most of the scientists think that this is a crazy idea, but five of them agree to join the professor on his adventure. They build a space capsule and a cannon that will shoot it to the moon. When they get to the moon, they meet many moon people and explore the landscape. They are captured by aliens, but eventually escape, go back to their capsule, and blast back to Earth. When they are back home, their community has a big parade to celebrate their accomplishment. A Trip to the Moon is one of the most famous silent films in history, and inspires many filmmakers and film music composers to this day.

Music in Silent Film

The next two activities follow a viewing of a single scene of A Trip to the Moon. Have students write or draw thoughts/feelings about each clip on their worksheet leading up to discussion. The questions will be printed on the worksheet (see below).

View the rocket launch scene of A Trip to the Moon without any musical accompaniment.
https://www.youtube.com/watch?v=BNLZntSdyKE
4:15-7:00

View the rocket launch scene with Tchaikovsky's 1812 Overture.
https://www.youtube.com/watch?v=_FrdVdKlxUk
4:15-7:00

View the rocket launch scene with Air’s original music.
https://www.youtube.com/watch?v=C8ZxoGLmw9U
4:15-7:00

Discussion Activity

Teacher will lead the class in discussing the following questions after viewing the three clips.

1. What are the characters feeling in this scene (without music)?
2. Does the music (in each example) change what you think the characters are feeling?
3. How does the music (in each example) relate to the motion/movement on the screen? If you are a music teacher and the students are familiar with basic musical terms, encourage them to use these terms (dynamics, tempo, rhythm) to express how the music relates to the onscreen action.
**LESSON 1: SILENT FILM**

**Group/Interactive Activity**
1. Divide the class into small groups of 5-8 students.
2. If using a music classroom, provide each group with simple hand percussion instruments. Otherwise, show them various body percussion techniques: clapping, tapping on legs, snapping, stomping, clicking the tongue, etc.
3. If possible, each group can be given access to the silent short scene of the film viewed earlier: [https://www.youtube.com/watch?v=C8ZxoGL-mw9U](https://www.youtube.com/watch?v=C8ZxoGL-mw9U) on a device (iPad, laptop, etc.), but this is not necessary.
4. Have each group come up with an accompaniment to the film scene using instruments or body percussion.
5. Each group performs their composition for the class and talks about what their music/rhythm conveys and why they made their choices. For younger students, this more abstract discussion can be left out and they can simply perform their work.

**Writing Activity**
When you go to Disney Hall, you will see Andrew Norman’s opera, which is based on the film *A Trip to the Moon*. In the opera, the composer used the beginning of the movie, which you have seen, and then imagined his own ending. You will see this ending in the performance.

In your notebook, write or draw your own ending to the story.

*Before the activity begins, encourage students to think about the entire scene — costumes, music, the way the scene looks — and to include that in their stories/drawings. Teachers can follow the writing/drawing time with a short sharing session of selected students’ imagined endings. During sharing, encourage students to speak about why they made specific choices.*

**Included in this lesson:**
- Picture of Georges Méliès
- Iconic photo of man in the moon from *A Trip to the Moon* film
- Note pages for writing observations and thoughts on the different soundtracks (discussion activity)
- Note pages for writing/drawing their own ending to *A Trip to the Moon*

**Materials needed:**
- Way to play film clips for the class
- Hand percussion (optional) for group activity
- Individual viewing devices (optional) for group activity
- Writing utensils and included worksheets

**Workshop Resources**

**Books**

**Films**
*A Trip to the Moon* written and directed by Georges Méliès (1902)
- Black & white version
- Colorized version

*Hugo*, directed by Martin Scorsese (2011)
- From about 1:27:00 shows some of Méliès films and his history

**Internet Videos**
*Example of live piano accompaniment to a silent film*
Music: Jonathan Benny, piano
Film: “The Goat” (1921) starring Buster Keaton
Recorded in Vancouver at the Hollywood Theater (2011)

*Example of orchestral scoring to a silent film*
Music: “Comic Hurry” (1918) by Christopher O’Hare, performed by Famous Players Orchestra
Film: “The Goat” (1921) starring Buster Keaton
LESSON 1: SILENT FILM

STEAM Integration for Lesson 1: Silent Film

Objective: In this integration, students dive into the early technology of filmmaking.

This integration should be completed after the Lesson 1 teacher-led overview.

Subject Areas:
- Early technology
- Math
- Visual art
- Film

Teacher-Led Overview

How did early films become colorized?

The original 1902 version of Georges Méliès’ A Trip to the Moon was in black and white. A colorized, hand-painted copy was discovered in 1993 and later restored in 2010-2011. Early films were made by imprinting a series of still images on a strip of celluloid. By running that celluloid strip quickly through a lighted projector, filmmakers could use several still images to create the illusion of a moving image. Since films were made of lots of images, adding color to early films — like A Trip to the Moon — meant hand-painting each one of those still frames.

Art Activity (Visual Arts/Film)

With this background about early film technology, have students hand-color a frame from A Trip to the Moon.

Example of a colorized frame from A Trip to the Moon.

Image options
- Still Frame from A Trip to the Moon

Math Activity

Have students work through the story problem below. The problem requires skill in multiplication.

A Trip to the Moon uses 14 still frames per second. The full length of the film is 16 minutes. How many frames would the film team have to hand-color to colorize the entire film?
LESSON 1: SILENT FILM

Georges Méliès
LESSON 1: SILENT FILM

LE VOYAGE
DANS LA LUNE

“STAR FILM”
Geo Méliès. Paris
LESSON 1: SILENT FILM: VIEWING/DISCUSSION ACTIVITY: A TRIP TO THE MOON WORKSHEET 1

Clip 1 – Silent: https://www.youtube.com/watch?v=BNLZntSdyKE
What are the characters feeling in this scene?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Clip 2 – 1812 Overture: https://www.youtube.com/watch?v=_FrdVdKlxUk
What are the characters feeling in this scene?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Does the music change what you think the characters are feeling?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
LESSON 1: SILENT FILM: VIEWING/DISCUSSION ACTIVITY: A TRIP TO THE MOON WORKSHEET 2

Does the music change what you think the characters are feeling?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Clip 3 – Air: https://www.youtube.com/watch?v=C8ZxoGLmw9U

What are the characters feeling in this scene?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Does the music change what you think the characters are feeling?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

How does the music relate to the motion/movement on the screen?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
LESSON 1: SILENT FILM: WRITING ACTIVITY: 
A TRIP TO THE MOON WORKSHEET 3

When you go to Disney Hall, you will see Andrew Norman’s opera, which is based on the 
film A Trip to the Moon. In the opera, the composer used the beginning of the movie, which 
you have seen, and then imagined his own ending. You will see this ending in the performance. 

Use the space below to write or draw your own ending to the story.
LESSON 2: LANGUAGE AND MUSIC

Objective: In this lesson, students will explore language as the primary form of human communication. They will learn about “Moonish,” Andrew Norman’s invented language for A Trip to the Moon. By the end of the lesson, they will be able to make connections between spoken language and the language of music. They will also have the opportunity to create their own rhythmic language and share it with the class.

Moonish 101 with Andrew Norman
View the Moonish 101 video with Andrew Norman and his “Moonish Expert, Dr. Mara Moonish.” In this video, he and Dr. Mara Moonish will demonstrate some of the basic phrases in Moonish, emphasizing how pitch and rhythm are used in the language. They will demonstrate a simple song or phrase in Moonish. For the musically inclined, the composer’s Moonish 101 sheet music is included with this lesson. The first writing activity supplements the video and will help students extract key content.

Writing Activity
Worksheet 1: A Guide to Moonish 101. Distribute the Moonish 101 worksheet. There will be questions about the Moonish 101 video. Have students complete the worksheet either during or after watching the video. Distribute the fill-in-the-blank worksheet. There will be a word list that students will use to complete sentences about the Moonish language. For instance: Moonish people use mostly _________________________ to communicate (answer: vowels). Use the activity sheet from the Moonish 101 with Andrew Norman activity to help students with this activity.

Discussion Activity
Teacher will lead the class, prompting them with the following discussion questions. This can happen before or after viewing the Moonish 101 video, but should happen after completing Lesson 1 – Silent Film.

1. Do you speak more than one language? Do you know someone who speaks more than one language?
2. What makes a language a language? Does it need to involve words?
3. In what ways can people communicate without speaking?
4. Thinking back to the silent film activities, how did the music communicate what different characters were feeling or doing? Can you tell what is going on without the characters onscreen speaking?

Group/Interactive Activity
Students will create their own language and invent a greeting, a goodbye, and expression of joy/happiness, and an expression of sadness/anger.

1. Divide the class into small groups of 5-8 students.
2. Before beginning, teachers will give the students a few communication tools, and the students that their language/expressions can be either pitch-based or rhythm-based.
   - Teachers can give students examples of body percussion techniques, which they may remember from the silent film lesson: clapping, tapping on legs, stomping, snapping, etc.
   - Teachers (especially if they are music teachers) can give students examples of simple (2-note) musical phrases on a syllable like “ah” to use in addition to or instead of percussive techniques.
   - Teachers can demonstrate a simple rhythm: for example, clapping four times in eighth notes could mean “hello.”
3. From here, students get to work creating simpleinteractions (described above) using these sound tools.
4. Students will present their language to the rest of the class.

Included in this lesson:
- Film clip (online link) of Andrew Norman teaching Moonish 101
- Worksheet 2: Moonish 101 fill-in-the-blank worksheet

Materials needed:
- Technology to play film clip for the class
- Writing utensils and included worksheet
LESSON 2: LANGUAGE AND MUSIC

Workshop Resources

Internet Videos

Moonish 101 with Andrew Norman
Example of Opera in German (audio and video)
Composer: Wolfgang Amadeus Mozart
Opera: The Magic Flute, K. 620
Song: “Der Holle Rache Kocht In Meinen Herzen (Queen of the Night)”
Performed by Diana Damrau

Example of Opera in English (audio only)
Composer: Benjamin Britten
Opera: Peter Grimes
Song: “Embroidery Aria”
Performed by Kate Royal

Minions language “Class Rules”
Example of how communication can be non-verbal or require minimal understanding of words.

STEAM Integration for Lesson 2: Language and Music

Objective: In this unit, students explore the mechanisms through which they produce the sounds of language.

Subject Areas:
- Science (biology)
- Music (vocal)

Teacher-led Overview
Language requires we use our mouth and throat to create a variety of sounds. Speech and language professionals call small units of sounds phonemes (pronounced: FOE-neems).

Sensory/Exploration Activity
Have students make any or all of the phonemes in the tables below and consider: Where in the mouth or throat do each of the sounds form?

Vowels
Have students make the vowel sounds found in the Moonish 101 video. They can do this along with the video or separately.

Consonants

<table>
<thead>
<tr>
<th>Voiced Consonants</th>
<th>Voiceless Consonants</th>
</tr>
</thead>
<tbody>
<tr>
<td>/b/ bass</td>
<td>/p/ piccolo</td>
</tr>
<tr>
<td>/d/ duet</td>
<td>/t/ tuba</td>
</tr>
<tr>
<td>/g/ gong</td>
<td>/k/ composer</td>
</tr>
<tr>
<td>/v/ violin</td>
<td>/f/ finale</td>
</tr>
<tr>
<td>/θ/ this</td>
<td>/θ/ think</td>
</tr>
<tr>
<td>/z/ zipper</td>
<td>/s/ sound</td>
</tr>
<tr>
<td>/ʒ/ beige</td>
<td>/ʃ/ show</td>
</tr>
<tr>
<td>/ð/ jazz</td>
<td>/h/ harp</td>
</tr>
<tr>
<td>/m/ melody</td>
<td>/tʃ/ children</td>
</tr>
<tr>
<td>/n/ nut</td>
<td></td>
</tr>
<tr>
<td>/ŋ/ sing</td>
<td></td>
</tr>
<tr>
<td>/l/ legato</td>
<td></td>
</tr>
<tr>
<td>/r/ rainbow</td>
<td></td>
</tr>
<tr>
<td>/w/ waltz</td>
<td></td>
</tr>
<tr>
<td>/y/ yellow</td>
<td></td>
</tr>
</tbody>
</table>

Art Activity (Music)
Have students pick a vowel, a voice consonant, and a voiceless consonant and try to sing a note on each phoneme. Ask them the questions below:

How easy is it to sing on the phoneme?

Is it easiest to sing on vowels, voiced consonants, or voiceless consonants?

Opera singers mostly sing on vowels. Why do you think that is?
LESSON 2: LANGUAGE AND MUSIC WORKSHEET 1

A Guide to Moonish 101 with composer Andrew Norman and Dr. Mara Moonish

In the opera, Moon people don’t speak — they sing!
Listen to Andrew’s description and Dr. Mara Moonish’s demonstration of the Moonish language. Follow along with the activities below.

Moonish has six vowels:

<table>
<thead>
<tr>
<th>a</th>
<th>father</th>
<th>e</th>
<th>bed</th>
<th>i</th>
<th>machine</th>
</tr>
</thead>
<tbody>
<tr>
<td>l</td>
<td>ice</td>
<td>o</td>
<td>more</td>
<td>u</td>
<td>prune</td>
</tr>
</tbody>
</table>

How do the sounds of the vowels change when Moon people are excited?

How do the sounds of the vowels change when Moon people have something important (profound) to say?

When Moonish people are frightened (afraid) or angry they make a sound that starts softly and quickly grows louder (this is called a crescendo). It has a consonant at the beginning with lots of air in the sound.
Listen for these sounds in the video: Frightened: **Ssssha!** Angry: **Ffffa!**

Moon people use gasps and sighs to communicate.
Which direction does the gasp go when they are surprised?
LESSON 2: LANGUAGE AND MUSIC WORKSHEET 1 (continued)

Which direction does the sigh go when they agree with or understand someone or something?

Moon people use a special greeting to say hello and goodbye. Draw a line over the vowels below to show the direction of the sound (pitch) on each vowel. Dip the line down when the sound moves downward and climb up when the sound moves upward.

a — o — e — o

Listen to Dr. Mara Moonish’s excerpt from Andrew Norman’s opera. How would you describe the sound? What do you think she is trying to say? How do you think she feels?
In Andrew Norman’s opera, *A Trip to the Moon*, the Moon People use a language called Moonish to communicate. After viewing the video provided, use the word bank below to fill in the blanks.

1. Moonish People do not speak in the same way that you and I do. They often ______________ their words.

2. Moonish people use mostly ______________ to communicate, and rarely use ______________.

3. When Moon People are angry or afraid, the sounds they make start ______________ and quickly get ______________.

   *(Alternative 3 if students know musical terms):* When Moon People are angry or afraid, the sounds they make use a ______________.

4. Moon People use an upward gasp when they are ______________ and a downward sigh when they ______________ someone or something.

5. When the Moon People speak with their leaders, they often ______________ them.

6. In Moonish, the note/pitch goes ______________ when a question is asked and goes ______________ when a question is answered.

7. “a—o—e—o” is mainly used to say ______________ and ______________.
**LESSON 3: OPERA**

**Objective:** In this lesson, students will learn about everything it takes to put together an opera. In the digital guide, they will meet different members of the *A Trip to the Moon* team, learn about their roles, and what they like about being part of the production. Students will make connections to their own experiences as members of a team or collaborative group, and will have an opportunity to create their own skit centered on space travel and exploration.

**TEACHER-LED OVERVIEW**

Before beginning this lesson, students will view a short clip from one of the following two children’s operas:

- The Berlin premiere of *A Trip to the Moon*:

- Benjamin Britten’s *Noye’s Fludde*:
  [https://www.youtube.com/watch?v=iGroEYn6oMU - 2:00-3:10](https://www.youtube.com/watch?v=iGroEYn6oMU - 2:00-3:10)

Included in this lesson are Q&A biographies of different members of the opera team for *A Trip to the Moon*. The teacher can read these aloud while the class reads them on a screen or on a printout. These Q&A spotlights outline the roles in an opera (possibly composer, artistic director, instrumentalists, vocalists, set designer, etc.). These Q&As will tie into both the upcoming discussion and writing activities.

*For roles not covered in the Q&As, teachers should refer to the “glossary of opera roles” supplement page, which can be presented to the class in lecture form or given to the students to read on their own before completing the discussion and writing activities.*

**Discussion Activity**

*Teacher will lead the class in discussing the following questions following the viewing of the above clips and reviewing the quotes*

1. What makes an opera different from a film? From a play?

2. What are the different ways in which the people onstage communicate with one another? Does communication happen only through words? (This encourages students to note that action onstage is a form of communication, and that the orchestra is also expressing feelings, etc.)

3. Have you been part of a group in which you had a specific role? In your family? On a sports team? In a musical group? What is your role? How do you work together with other members of the team or group?

**Writing Activity**

*Following the viewing/reading of the team member Q&As and/or the glossary of opera roles, students will complete the crossword puzzle corresponding to different opera team member roles.*

**Group/Interactive Activity**

*Students will set the stage for their own opera scene, using the prompt: “You have just landed on the moon, and meet a moon person.” Students will have an opportunity to build on the language activity from Lesson 2, and should be placed in the same groups as that activity. Teachers can assign roles OR have students choose their role out of a hat. If groups are larger, more than one person can be assigned to a role (this is encouraged if students are younger and need more group reinforcement). See “materials needed” section for optional and required classroom materials.*

1. Divide the class up into small groups of 5–8 students. Teachers will assign (or randomly select) students to play the following roles, as defined in the glossary:

   - **Principal singers** (1-2 students) to play the moon person/people. They will sing/play one or more of the language invented in Lesson 2

   - **Conductor** (1 student). This person will start and stop the singing/playing of the language

   - **Costume designers** (1-3 students). These people will decide on the costumes worn by the moon people from available materials. If possible, have some simple costumes available: sheets, hats, stickers, aluminum foil (good for wrapping around students as “clothes” and building into hats). If these materials are not available, costume designers can draw or color what the moon people will look like.

   - **Set designers** (1-4 students). These people will draw or color on large strips of butcher paper a set for the scene, keeping in mind that it takes place on the moon.
LESSON 3: OPERA

2. Give students an adequate amount of time (30 minutes is ideal) to complete their opera scene. Circulate the room to make sure students are staying on task, and make suggestions as necessary.

3. On the next class day, or at the end of a longer class period, have students present their opera scene to the class. The conductor will conduct the singers in one of their language phrases (singing, playing, or body percussion). The singers will be wearing simple costumes chosen by the costume designers and standing in front of a student-created paper set.

Included in this lesson:
- Glossary of opera roles
- Opera roles crossword puzzle (writing activity)
- A Trip to the Moon Team Member Q&As

Materials needed:
- Writing utensils and included worksheets
- Large sheets of paper (butcher paper is best) for set design (group activity)
- Markers, colored pencils, or crayons for set and costume design (group activity)
- Hand percussion (optional) for students to use during performance (group activity)
- Simple costume materials (optional): aluminum foil, hats, sheets, stickers, etc.

Workshop Resources

Still Images
LA Opera’s production of Ghosts of Versailles
Composer: John Corigliano
Opera: Ghosts of Versailles
Use with Lesson 3 as example of a fully staged opera

LA Phil’s production of Tristan and Isolde
Composer: Richard Wagner
Opera: Tristan and Isolde
Use with Lesson 3 as example of a concert version of an opera

Example of a stereoscope of an 1875 operetta
Composer: Jacques Offenbach
Opera: Le voyage dans la lune
Scene: “No. 9 - Les Chimeres”

These stereo cards were like the old viewmasters! They allowed viewers to see a single, three-dimensional image by combining two photographs of the same scene taken from slightly different angles.

STEAM Integration for Lesson 3: Opera
Objective: In this unit, students identify and think about the technical roles on the opera team.

Subject Areas:
- Performing Arts (music, theater/stagecraft, dance)
- Science
- Math
- Engineering
- Technology

Teacher-led Overview
It takes a team to put on an opera! Many of the roles in both traditional and more modern operas are technical and require knowledge about many different areas, including math and science. Some roles need to be familiar with new and old technologies. In some roles, members of the opera team even act as engineers!

Discussion Activity
Have students look at the Glossary of Opera Roles and identify which jobs could involve design, engineering, math, science, or technology. The questions below can be used for the discussion activity or copied into a new document as a writing activity.

What kind of technologies might be used in an opera?

What kind of technology do you think you might see at A Trip to the Moon?

What areas of math (e.g. addition, multiplication, algebra, geometry) do you think an opera team uses? Which roles use those areas of math?

What areas of science (e.g. biology, chemistry, physics, earth science) do you think an opera team uses? Which roles use those areas?

Pick a role from the Glossary of Opera Roles and imagine you are working on an opera. How would you use engineering, math, science, or technology?
**LESSON 3: OPERA: GLOSSARY OF OPERA ROLES**

**Choreographer**  
The choreographer creates and designs the dance moves for the cast members onstage.

**Chorus**  
The chorus is a group of singers that appears onstage alongside the lead actors/singers. Chorus members only appear as part of a group, and the audience usually does not know their names.

**Composer**  
The composer writes the music for the opera. Sometimes, he/she is also the librettist.

**Conductor**  
The conductor leads the orchestra, either on the stage or in an orchestra pit, and also works with the singers and chorus.

**Costume Designer**  
The costume designer works with the set designer to choose and design the costumes worn by the people onstage.

**Librettist**  
The librettist writes the words that the people onstage sing and speak. Sometimes, this person is also the composer.

**Lighting Designer**  
The lighting designer decides how to coordinate the light changes onstage that help create certain special effects in an opera.

**Makeup Designer**  
The makeup designer works with the costume designer to choose the appropriate makeup and “look” for the people onstage.

**Orchestra**  
The orchestra is the group of musicians who accompany the singers and actors onstage. They are led by the conductor.

**Principal Singers**  
The principal singers are the “stars” of the opera. They have solo singing and speaking roles, and work with the chorus and orchestra to bring the opera to life.

**Production Manager**  
The production manager works with the director to coordinate people on the opera team. Think of the production manager as a team leader for the technical parts of the production.

**Set Designer**  
The set designer creates the background and decides on props that will be used onstage.

**Stage Director**  
The stage director chooses how the actors and singers move on the stage and how they interact with the set and scenery.

**Stage Manager**  
The stage manager is in charge of the technical parts of the production including scene changes, light changes, and the entrances and exits of the people onstage.

**Video Designer**  
The video designer works with the director and lighting designer to design and create videos used in the opera. Videos are used for scenery, to add to the story, or to add to the onstage action.
Andrew Norman
Composer

What do you like about being a composer?
I really love seeing people make choices and take risks onstage. I think there’s something very powerful about that. It’s something I try to empower in my music: the ability for somebody to make a choice on stage, for someone to take a risk to have a definite idea about a piece. So, if there’s any way where I can get someone to do something slightly risky or slightly spontaneous within a piece, I will go for that. That to me is interesting.

Why did you decide to become a composer?
Composing was something I did a lot when I was younger, but I was interested in many different things: different aspects of music and even architecture. I wrote music when I was younger because it was an act of community. I was in school orchestra and it just seemed to make sense that I would write for my friends. Even now, I feel that my most satisfying musical experiences are always writing something for my friends and being able to share music that way is what composing is about.

What do you like about working on A Trip to the Moon?
We can learn to appreciate and communicate with others who are, in one way or another, not like us. I’m thrilled to be able to share that through this opera.

What’s it like to collaborate on a piece of music?
I really value collaborative environments where you get to try things out and bring out people’s personalities. Part of collaborating with an orchestra is communicating ideas as clearly as you can on the written page. When I want the orchestra to be sloppy, I have to communicate in the music. “Here’s the time to be sloppy,” “Here’s the time to let go,” or “This is what matters now.”

Katie Pieschala
Chorus Member – Los Angeles Children Chorus

What is it like singing in an opera?
A lot of fun – and also a lot of work! Opera is exciting because we get to act out interesting stories and sing, but coordinating music and staging for hundreds of people means everyone needs to work together during rehearsals.

What do you like about singing or performing?
I enjoy singing and performing because it gives me an opportunity to connect with other people. Sharing a story or an emotion on stage is powerful because it brings the performers and the audience together through a shared experience.

How did you start singing in a choir?
I started singing in my choir, the Los Angeles Children’s Chorus, when I was eight years old. I liked singing and music, and several older kids I knew who had joined the choir recommended it to me.

What do you like about singing in a children’s opera?
Most opera is written for adults, so singing in a children’s opera is a unique and new experience for me. I am excited to perform for school children, especially those who may not have seen an opera before.

Tell us what it’s like to collaborate with other performers or production professionals in an opera.
One of the most interesting parts of being in an opera is seeing professionals at work, especially those that work behind the scenes, like the person in charge of the props or the stage manager. It is amazing to see the amount of organization and dedication that goes into a production before performances actually begin.
What is it like working on an opera?
My professional and educational background is in theatre. I began working in classical music after spending years working on plays and musicals. It was definitely a bit of a culture shock when I worked on my first opera. Like most classical music disciplines, tradition and formality play a large role in the way producing an opera is approached. Aside from the cultural differences between the two producing an opera is similar to producing shows for theater.

What do you like about being a production manager?
I came into production through being a stage manager. That job gave me the opportunity to be a part of almost every aspect of a show, from rehearsals through closing. It also gave me the chance to work with everyone from designers to cast to crew. Production Management does something similar but, it allows me to have a longer view of the project. I come into the process even earlier and I have deeper involvement in putting a show together. Though much of my work is even less visible than as a stage manager, the sense of ownership and pride in the final product is greater.

Why did you decide to become a production manager?
I have always had a professional policy of always saying yes. I tried to take every opportunity that came my way in order to broaden my perspective on the performing arts and to gain more experience to make me a more well rounded collaborator. Production management came along as a new and unique opportunity that I felt like I needed to give a try. Though it was a big change from what I was doing before, it provides more job stability, a greater sense of community (since I am working with one company rather than many), and also affords me the same kind of variability and new challenges I used to get as a stage manager. While much of my work has become administrative, the skills I developed in the trenches as a stage manager are still put to good use as a production manager.

What do you like about working on a children’s opera?
I have always enjoyed working on theatre for young audiences. I think the best productions are not necessarily made for children, but rather are designed in such a way that they are accessible to children. Kids don’t need to be talked down to and we shouldn’t lower our artistic standards to try to “make them understand”; they get it. Kids don’t need our help as long as the piece is engaging. There is also something truly special about getting to produce a piece of theatre that will be someone’s first. It doesn’t matter if that audience member is a child or an adult, inviting people into the world of the theatre for the first time is always an incredible motivator for me.

Tell us what it’s like to collaborate on an opera.
Collaborating on an opera, in a lot of ways, is no different than collaborating on any other piece of theatre. There are all kinds of different personalities coming together to create something. That is always going to have its challenges, but as long as everyone is aiming for the same goal, the work will come together.
What is it like working on an opera?
It’s a longer process than other productions, and we usually work on them for a year or longer. The process is much more thorough, and we really get to sink our teeth into the story. The design elements also feel more epic when designing for an opera, which allows us to push more boundaries artistically.

What do you like about designing videos for a show?
We like being able to pursue new ideas with each show. For example, in this opera we are playing with a live green screen effect. We have done green screen shoots behind the scenes to make our content, but this is the first time we are using it as a live effect. We love pushing the technical elements and fusing them with custom created content.

How did you start as a video designer?
Jason: I started as a Projection Designer while I was in grad school. My director friend was doing a big hip hop musical and he needed like 30 video transitions. At the time I was doing some graphic design work for the school, and they gave me the option to get paid in bookstore credit, which would mean I could make more than if they paid me in cash. So, I took the store credit and bought Final Cut and After Effects and I taught myself those programs to build all these video transitions for the hip hop musical. That was my first taste of Projection Design. The summer following my graduation I met Projection Designer Michael Clark and I assisted him on Dracula: The Musical on Broadway. It was the first of many shows I would assist him with, and he’s the one who gave me my real Projection Design education. Working on actual projects and learning about projectors and system design at the same time. Learning as an apprentice was the best and only way to learn Projection Design at that time, 2004, almost 15 years ago.

Kaitlyn: After earning my undergraduate degree in architecture, I decided to pursue scenic design in grad school. In my second year, I was asked to design projections for a show. I quickly fell in love with the fluidity, pace, and flexibility of Projection Design. After designing a few more shows and assisting, I realized that all my training was leading me to a career in Projection Design. Each show offered a new challenge. One of the first times I opened After Effects was on a show I was assisting on in New York where I had to animate a sequence. I stayed up all night figuring it out and I’ve been hooked on animating ever since. I never planned on pursuing Projection Design as a career, but now I can’t imagine doing anything else!

Tell us what it’s like to collaborate with other professionals in an opera. What’s fun or challenging?
Projection Designers work closely with all the other designers on an opera, so you really get to be an integral part of the other processes. We are often inspired by the architectural elements of the set, the colors and fabrics of the costumes, and the way the lighting plays with the music. Working closely with the whole team can be a lot of fun, because very often these are also friends of yours. The challenging part for all of us is to focus all of our designs down to a singular perspective, so it looks like a cohesive piece. We don’t create our work in a vacuum. It doesn’t exist without all of the other elements together as a singular vision shared with the director.
What is it like working on an opera?
Opera is a joy to design. I have the opportunity to describe characters boldly and dramatically which helps the overall appearance of the characters. I get really excited about the story and how the Director’s vision marries with the tale. I often do a lot of research and present a couple of options to the opera team. Sometimes it takes two or three versions of costume illustrations before we find a world where all of the characters’ clothes fit together. No other kind of theater is quite like opera: there is always some new technology or a grand gesture.

What do you like about designing costumes and/or makeup for a show?
I love studying characters in stories and how they present themselves through their clothing. As a designer, I get to work with the actor to help them become someone else. It is so much fun to do! I have always been interested in hair, makeup, and costumes as a complete gesture. I adore hair and makeup design and often start with the head first when I begin to create a character’s look. In A Trip to the Moon, you will see very little hair for the Moon People. I wanted the focus to be on their headdresses and makeup design. The Professors have human hair and facial hair.

How did you start as a designer?
I learned to sew when I was 7 and I have never stopped since. I am number 9 in a family of 14! Because of that, I quickly learned that if wanted to wear something special, I needed to learn to make it myself. I made and sold clothes in high school and then I got involved in theater. I started doing everything I could to explore myself as an artist. I began college as a Musical Theater performer and was introduced to my first costume shop while working backstage on a show. I was performing and directing on a musical tour in Japan and, again, I found myself spending all my free time helping in the Costume Shop. When the tour was over, I moved to Los Angeles and began seeking out a theater with which to grow my costume skills. I found two amazing companies: the Actors Gang and The Evidence Room. I am now a long time member of both. After gaining some attention and awards, I was invited to design costumes for many wonderful projects for television, theme parks, commercials, film, and magazine print. It has been a challenging and creative career and there is still more to learn and do!
Across
5. This person chooses and designs the costumes worn by the people onstage.
7. This person designs and creates videos used in the opera.

Down
1. This person works with the director to coordinate people on the opera team.
2. This person writes the music for the opera.
3. This person writes the words that the people onstage sing and speak.
4. A group of singers that appears onstage alongside the lead actors/singers.
6. The group of musicians who accompany the singers and actors onstage.
Across

5. This person chooses and designs the costumes worn by the people onstage.

7. This person designs and creates videos used in the opera.

Down

1. This person works with the director to coordinate people on the opera team.

2. This person writes the music for the opera.

3. This person writes the words that the people onstage sing and speak.

4. A group of singers that appears onstage alongside the lead actors/singers.

6. The group of musicians who accompany the singers and actors onstage.
LESSON 4: SCIENCE FICTION

Objective: In this lesson, students will explore the science fiction genre and how it relates to “real life” and also deviates from it. More specifically, they will make connections between the real and the imaginary, and begin to understand how science fiction can help us understand real life. Students will also have the opportunity to imagine what music on the moon would sound and look like.

TEACHER-LED OVERVIEW
Before beginning the activities in this lesson, the teacher will give the class a brief overview of the science fiction genre, focused on the following question:

Additionally, the digital guide will provide some quotes (and possible photos?) of different members of the opera team for A Trip to the Moon. The teacher will read these aloud while the class reads them on a screen or on a printout. These quotes will briefly outline the role of these people (possibly composer, artistic director, instrumentalists, vocalists, set designer, etc.). These quotes will tie into both the upcoming discussion and writing activities.

What is science fiction?
Science fiction (or sci-fi) is a type of fiction (explain what fiction is if this is not known – or say “make-believe story”) based on a scientific idea or theme. It often deals with the future, space travel, time travel, space aliens, new or invented technology, or environmental changes. Sci-fi is a popular theme in books, movies, television shows, and plays. Sometimes, science fiction has a basis in real science, and sometimes it is completely imagined by the author or creator.

Discussion Activity
Teacher will lead the class in a discussion of the following questions after the sci-fi overview described above.

1. Can you think of any examples of science fiction movies, books, or television shows? Why do you think they can be categorized as sci-fi?
2. In any of the examples mentioned above, can you identify real-life aspects in the book, movie, or television show? How are the characters’ worlds similar to our own world? What scientific ideas or themes are important: technology, astronomy, physics, biology, chemistry, geology, etc.? What are the make-believe parts of the characters’ world?
3. Why would an author or creator choose to set a story in a far-away or make-believe land?
4. What real-life issue or struggle do you think could be tackled/explored by telling it through a science fiction story?

Writing Activity
When you go to Disney Hall, you will see and hear Andrew Norman’s opera A Trip to the Moon. In this story, a group of scientists travel to the moon and meet the people who live there. In the included worksheet, write or draw your responses to the following questions.

How do you think the moon people look? What kind of clothes do they wear (and why)? What kind of music do they like? How are they different from us? How are they the same? Tell us about a time that you visited a new place and met people different than you. How did you feel? How did you get to know the place and the people? After spending some time there, did you feel differently?

Group/Interactive Activity
Note: If students are unfamiliar with musical instrument families, they should refer to the simple picture-glossary supplement included with this lesson before or during this activity.

1. Divide the class up into small groups of 5-8 students.
2. Provide students with two large pieces of paper and writing/coloring materials (or have them use an area of a whiteboard/chalkboard).
3. Give students this prompt: Think about a scientific idea or theme. Imagine your own sci-fi universe/planet based on that theme. Draw and/or describe the world on your first sheet of paper. Your sci-fi world needs a soundtrack/music. What kinds of sounds are heard in your world? What kind of instruments (refer to instrument glossary) would play these sounds? What do these instruments look like? Get creative! Instruments do not need to look exactly like ones that you know. Draw and/or describe the sounds and instruments in your sci-fi universe on your second sheet of paper.
LESSON 4: SCIENCE FICTION

4. At the end of the activity, have groups share their sci-fi worlds and instruments with the class. If possible, teachers can ask students why they chose specific sounds and instruments to accompany their world.

Included in this lesson:

- Writing activity supplement worksheet
- Glossary/pictures of instrument families

Materials needed:

- Writing utensils and included worksheet
- Large sheets of paper (butcher paper is best) for group activity
- Markers, colored pencils, or crayons for group activity

Workshop Resources

Books


Films

Hugo, directed by Martin Scorsese (2011)
From about 1:27:00 shows some of Méliès films and his history

Sci-Fi Soundtracks

First film with an electronic soundtrack
Music by Bebe and Louis Barron
Film: Forbidden Planet directed by Fred M. Wilcox (1956)

New Dr. Who Theme (2015)

Star Wars (Original Main Theme, 1977)
Composer: John Williams

Star Trek Beyond (Main Theme, 2016)
Composer: Michael Giacchino

Avatar (2009)
Composer: James Horner
LESSON 4: SCIENCE FICTION WRITING ACTIVITY: WORKSHEET 1

How do you think the moon people look? What kind of clothes do they wear (and why)? What kind of music do they like? How are they different from us? How are they the same?

Use the space below to write or draw your ideas.
LESSON 4: SCIENCE FICTION WRITING ACTIVITY: WORKSHEET 2

Tell us about a time that you visited a new place and met people different than you. How did you feel? How did you get to know the place and the people? After spending some time there, did you feel differently?

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INSTRUMENT FAMILY TREE STUDENT WORKSHEET

**Strings**
- Made of wood
- Played with bow or plucked

**Woodwinds**
- Made of wood or metal
- Played with air and fingers

**Brass**
- Made of metal
- Played with buzzing air and fingers

**Percussion**
- Made of wood and skins
- Played with mallets and hands
PREPARING FOR YOUR CONCERT HALL TRIP WORKSHEET

As you prepare for your trip to Walt Disney Concert Hall, complete these sentences.

1. I can’t wait to see...

   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________

2. I wonder if...

   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________

3. I think I will...

   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________

4. I hope...

   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________
CONCERT HALL PERFORMANCE REFLECTION WORKSHEET

1. What was it like to visit the Walt Disney Concert Hall?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

2. How was your experience different from what you expected?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

3. What surprised you about your visit to the concert hall?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

4. What did you enjoy most about the concert?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
A TRIP TO THE MOON

UNPACKING THE ELEMENTS OF MUSIC
THE ROLE OF THE COMPOSER

When you listen to symphonic music do you ever wonder about the person who created the music? Where did the music come from, and how was it created?

A person who writes music is called a composer. A composer’s job is to create music for performance. But how do composers create music from scratch? Some composers begin by imagining sounds—a melody, harmony, rhythm, or sounds of instruments. Sometimes composers imagine all these things at once, other times they imagine only a few sounds which they later have to shape and build on. Composers sometimes begin with just a mood, an image, or an idea that they want to communicate through sound. Although there are many ways in which composers create music, ultimately, the music they create always expresses something—whether a mood or emotion or an idea of some kind.

A composer is an artist who works with sounds. Although there are many kinds of artists working in different ways, such as writers, painters, choreographers, and architects, to name a few, composers share something in common with all of them. Let us make a few comparisons.

Like an author of a storybook or a poem, a composer writes music that tells a compelling story through sound. There is a beginning, middle, and end to each musical piece, and the journey can be very poetic.

Like a painter, a composer paints colorful pictures with sound on the canvas of time. The sound of an instrument has a particular tone that can be compared to a color. A flute sounds different from a cello or a tuba. Composers use many instruments to make a musical piece rich with colorful sounds.

Like a choreographer, a composer uses a variety of rhythms to make sounds move or “dance” in time. All music has rhythm. Rhythm helps make music come to life by giving the notes movement. Also, think about how music moves you or how it makes you want to move to it.

Like an architect, a composer builds small to huge structures of musical sound—small like a short song, or huge like a symphony. Sounds are the composer’s building materials. A writer once wrote that architecture is like frozen music. Looking at this in reverse, music is like a dynamic piece of architecture.

Each piece of music is like a universe—there is almost an infinite number of things you can find in a musical piece the more you listen. Throughout the history of classical music, there have been many great composers. Listen to some of their music, and then listen again. You will notice that the more you listen, the more new and wonderful things you will find.

THE ROLE OF THE CONDUCTOR

When you attend an orchestra concert, the conductor is easy to find: he or she is the sole person standing in front of the orchestra waving a baton. But what exactly is the conductor doing, and why is his/her role so important?

First, know that the conductor is the leader of the orchestra. Although the conductor leads the orchestra onstage during the concert, much of his/her work takes place during rehearsal.

The conductor interprets and shapes the music written by a composer. For example, some musical pieces are meant to be played fast in certain parts and slow in others. But exactly how fast or slow shall it be played? Some musical pieces can have a wide dynamic range, from soft to loud. In many cases, the dynamics fluctuate between soft and loud. But exactly how soft or how loud should the orchestra play? The conductor’s job is to make these important decisions. The conductor shapes the overall sound of the orchestra by coordinating all the players to make sure that all parts of the music sound just right.

As you know, the orchestra is a huge group of musicians—sometimes up to 100 players or more. Because the group is so huge, they cannot always hear the musicians sitting far away. However, the conductor can hear everyone since s/he is stationed in front of the orchestra. If some musicians are playing too loud, or in a way that doesn’t mesh with the rest of the orchestra, the conductor’s job is to fix that problem and to make sure that they are playing in a smooth and balanced manner.

When you watch an orchestra perform, you will notice the conductor cueing the orchestra. This means that the conductor is signaling the musicians to play given sections a certain way as they had rehearsed.

It is also important to know that every conductor has a unique style of interpreting music and conducting an orchestra. When you hear a musical piece led by a certain conductor, keep in mind that the same piece, led by another conductor, will sound different.
**Rhythm**

As you listen to music, do you sometimes feel like moving with the sounds? What in the music gives this sensation of movement? One of the most important elements that create this feeling of movement is rhythm. Rhythm is the pattern of short and long notes in a piece of music.

But how does rhythm, the pattern of short and long notes, create movement? When listening to a piece of music, you will often encounter a pulse called a beat. And like the beating of your heart, this pulse is usually very steady. You can almost always feel it in any musical piece. Beats in music usually happen in cycles that are often divisible by two or three. The first beat of a cycle is called a downbeat. The downbeat signals the first beat within a cycle of beats. It's usually easy to find because its emphasis or accent is usually stronger than the other beats. For instance, a waltz has three beats—1-2-3. The first beat is the downbeat. It marks the beginning of the cycle (1, 2, and 3) and has a strong emphasis that can easily be felt or heard.

Now listen to what happens in the music simultaneously with the beats. Some notes move slowly (their durations are long) and some notes move faster (their durations are short). When short and long notes are combined, a pattern of different durations is created. A melody (the main “tune” in a piece) usually contains notes of different lengths; some are shorter and some are longer. Combine short and long notes, and you get rhythm.

Some rhythms are very fast because they are comprised of very short notes. Notice how fast rhythms seem to race across the music’s pulse. Some rhythms are very slow because they are comprised of long notes. Slow rhythms can sometimes move even slower than the music’s pulse.

In classical music, you will hear a wide variety of rhythms. Some rhythms are repeated over and over again and are easy to remember. Some are very simple and you can easily clap to them. Other rhythms are very complex and are hard to pin down. Whistle or sing a melody that you like and pay attention to the pattern of movements in the melody. There you will find its rhythms.

**Tempo**

Have you ever thought about how the mood of a musical piece is affected by the speed—degrees of fastness or slowness—at which it is being played? The speed or pacing of a musical piece is called tempo. The tempo marking of a piece indicates to the performer how fast or slow it is to be played. But it is important to keep in mind that the composer chose the tempo for a particular piece because s/he felt that that particular pace best conveys the mood s/he is trying to express.

For example, if a musical piece meant to convey a feeling of excitement is played too slowly, the energetic mood of the piece will be lost. Therefore a faster, brisk tempo would be best suited to convey the feeling of excitement. If a piece that is meant to convey a feeling of sadness is played too quickly, the “sadness” of the piece might be lost. Sometimes, tempo markings are not specifically given. Many of today's composers like to use metronome markings to specifically designate the tempo of a piece.

A metronome is a device that produces a clicking sound to mark a specific rate of time. It can generate an exact number of beats per minute.

In most classical music, you will not find metronome markings. So what did classical composers do to designate tempo? For centuries, many composers use standard musical terms in Italian that designate tempo. Here are a few of them:

- **Largo:** very slow tempo
- **Adagio:** slow tempo (slower than Andante)
- **Andante:** moderate walking tempo
  - (moderately slow)
- **Allegro:** fast tempo
- **Presto:** very fast tempo

Some composers today still use these terms, and on occasion, they will use them with metronome markings. Why use these terms when they can use metronome markings? Because tempo markings suggest not only the tempo of a piece, they also suggest a kind of mood. For instance, one term used to designate tempo and mood is “vivace.” “Vivace” tells the player to play a musical piece in a fast and brisk manner. But it also tells the player to play in a lively manner. “Brisk” designates speed, while “lively” designates a mood.

**Melody**

A melody is simply a tune. When you sing or whistle a tune, you are most likely whistling the main melody of a song or piece.

A melody is a succession of musical notes, often varying in pitch and rhythm. Let’s take a typical song for example. Most songs have a main melody usually sung by a vocalist and accompanied by instruments. In instrumental music, on the other hand, most pieces have a main melody and a dominant theme often played by a solo instrument or a section of instruments.

In classical music, although there is usually a dominant melody present, you will notice that there are sometimes other melodies playing simultaneously. Sometimes these melodic lines are in the background accompanying the main melody. Sometimes they are
in the foreground, playing contrapuntally with the main melody. (Counterpoint is a musical technique where two or more melodic lines are playing simultaneously; you will hear lots of counterpoint in most Baroque music, particularly in the music of J.S. Bach.)

In many pieces, melody is one of the most memorable parts of the music. It is the part that one can more easily remember and whistle or sing. Rhythms too can be very memorable, but one usually taps, and not sings, a rhythm. Rhythms work hand-in-hand with melodies. A melody cannot exist without rhythm, because there can be no succession of notes without movement, and movement is rhythmic.

Although a melody line can exist without other notes supporting it in the background, the sole melody line will most often seem a little empty, like there’s something missing. Why? Because in most music, a melody line often implies a larger relation of pitches. What is this larger relation of pitches called? See the next section about Harmony.

Harmony

When listening to music, you will hear a combination of notes playing simultaneously. Usually you can distinguish the melody (or melodies) in the foreground from the other notes in the background. Given that a musical piece contains many notes moving in different rhythms and at different speeds, have you ever wondered how these notes fit together harmoniously without ever clashing?

In music, harmony is the simultaneous combination of musical notes—notes played individually (as in a melody), or notes sounded together (as in chords, or two or more notes played at the same time). But “harmony” also has other meanings such as agreement and unity. How do these other definitions fit into the simultaneous combination of musical notes?

Listen closely to music and you will notice that all the notes are in agreement with each other. They are played simultaneously without ever clashing. Sometimes you will hear combinations of notes that seem a bit harsh or dissonant, in other words, not in agreement with each other. Dissonant harmonies can sound harsh, but they serve a function. Composers use dissonances in harmony to create a sense of tension, which is then resolved with a consonant, or agreeable, harmony.

When musical notes are in agreement, they express a sense of unity. All of the notes heard in a musical piece are smaller parts of a greater whole. All of the parts work to express the greater whole—the totality of sounds, ideas, and moods that the composer is conveying through music.

Dynamics

Imagine speaking with a soft voice for a long period of time without getting louder. Now try the opposite. Imagine speaking with a loud voice without getting softer. In either case, you will find that it is difficult to express yourself with just one dynamic range. The same goes for music.

Dynamics is the variation of a sound’s loudness and softness. Dynamics are equally as important in music as any of the other elements of music—melody, harmony, rhythm, and tempo. Without dynamics, the expressiveness of musical sounds is limited.

A musical utterance can sometimes be compared to a vocal utterance. When you speak, the sound of your voice is rich with nuances and subtleties that communicate your mood in addition to what you are saying. For example, let us take the phrase “hello, it’s nice to see you.” What would this phrase sound like if coming from a person who was very excited? His speech might be faster than normal, and the volume of his voice might be louder. Now what if this same person was not feeling excited, but sad? Try to imagine what the volume of his voice would sound like. Would it be louder or softer?

Now, let us see how this applies to music. Let us take for our example the tune Twinkle, Twinkle, Little Star. Imagine an “instrumental” version (no vocals) played by a single instrument, say, the violin. What would this tune sound like if it were to be played in a manner that conveys a feeling of excitement? How loud or soft would the dynamics be? Would it start off loud and stay loud, or would it start off soft, and get louder and faster (conveying a sense of increasing excitement)? What if the violinist were to play a gentler and more relaxed version of this tune? How soft should the tune be played to convey a feeling of gentleness and relaxation?

There isn’t a true right or wrong way to answer the questions above. What is important to keep in mind is that dynamics play a very important role in expressing the mood of a musical line. When listening to music, pay attention to the subtle changes in the dynamic range of the instruments. Listen to the variations of loudness and softness, and notice how it affects the mood and expressiveness of a musical piece.
A TRIP TO THE MOON

APPENDIX AND RESOURCES
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>adagio</td>
<td>slow, relaxed tempo</td>
<td>fugue</td>
<td>a composition with two or more voices or parts, in which the melody (called the subject), is played by one voice/part and then replayed and modified by the other voices/parts. There are usually from two to five voices or parts.</td>
</tr>
<tr>
<td>allegro</td>
<td>fast, brisk tempo</td>
<td></td>
<td></td>
</tr>
<tr>
<td>beat</td>
<td>a consistent pulse much like the heart</td>
<td></td>
<td></td>
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<tr>
<td>chorale</td>
<td>a hymn tune</td>
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<tr>
<td>chord</td>
<td>a combination of tones sounded together</td>
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<tr>
<td>choreography</td>
<td>the idea and organized steps for a dance, just as musical composition is the idea and the organization of notes for a piece of music</td>
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<tr>
<td>composer</td>
<td>a person who writes music for performance</td>
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<tr>
<td>concerto</td>
<td>a piece for orchestra with a prominent solo instrument(s)</td>
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<tr>
<td>conductor</td>
<td>the leader of a musical ensemble</td>
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<tr>
<td>crescendo</td>
<td>a gradual increase in volume; growing louder</td>
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<tr>
<td>decrescendo</td>
<td>a gradual decrease in volume; growing softer; same as diminuendo</td>
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<tr>
<td>dissonant</td>
<td>harsh-sounding, needing resolution</td>
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<tr>
<td>dream image</td>
<td>fantasy, longing, memory, beauty, wishes, and that which is just beyond our reach</td>
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<tr>
<td>duet</td>
<td>a composition for two musicians, most often for voice or piano duet</td>
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<tr>
<td>dynamics</td>
<td>variations of volume, from soft to loud, and loud to soft</td>
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<tr>
<td>ensemble</td>
<td>French for “together”; a group of instruments which play a piece of music together</td>
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<tr>
<td>finale</td>
<td>the last, or final, movement or section of a large work</td>
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<tr>
<td>forte</td>
<td>loud</td>
<td></td>
<td></td>
</tr>
<tr>
<td>fortissimo</td>
<td>very loud</td>
<td></td>
<td></td>
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<tr>
<td>gavotte</td>
<td>originated as a French folk dance. It is notated in 4/4 or 2/2 time and is of moderate tempo</td>
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<tr>
<td>harmonia</td>
<td>the simultaneous combination of musical notes; a pleasing sound</td>
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<tr>
<td>improvisation</td>
<td>the art of composing music while performing it, without the help of a written score</td>
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<tr>
<td>instrumentation</td>
<td>the art of deciding which instruments to use when composing or arranging</td>
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<tr>
<td>jazz</td>
<td>African-American musical form developed from the blues and ragtime</td>
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<tr>
<td>live editing</td>
<td>creating, composing, and changing a work as it is being recorded</td>
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<tr>
<td>march</td>
<td>a musical composition with a strongly accented beat that is designed to accompany the action of marches</td>
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<tr>
<td>melody</td>
<td>a succession of musical notes, varying in pitch; a tune</td>
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<tr>
<td>mezzo</td>
<td>medium or moderately; mezzo forte is moderately loud, mezzo piano is moderately soft</td>
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<tr>
<td>minuet</td>
<td>an old dance in triple time that started in the French court; later, it became used in purely instrumental compositions</td>
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<tr>
<td>movement</td>
<td>one section of a larger piece, such as a symphony, like a chapter in a book; movements are usually separated by pauses or breaks</td>
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</tbody>
</table>
opera: a type of musical theater which includes singing, acting and dancing; in opera, the dialogue is usually sung.

orchestra: an instrumental group, usually led by a conductor, which includes sections of string players, and usually wind and percussion instruments as well.

orchestration: the process of distributing the music among the instruments of the orchestra.

organ: a keyboard instrument on which sound is produced by forcing air through pipes; each pipe sounds one tone, and is controlled by keyboards and pedals. Also called a pipe organ.

overture: an instrumental selection which begins an opera or ballet, usually containing bits and pieces of music from the rest of the work; a short piece often suitable for beginning a concert.

philharmonic: literally means “lover of harmony;” now, it means a symphony orchestra.

pianissimo: very quiet.

piano: quiet.

pitch: the highness or lowness of sound.

polka: a lively couple dance in 2/4 time of Bohemian origin.

presto: very fast.

rhythm: the combination of long and short note durations in a piece; the organization of sound over time.

score: a) written music that shows all of the parts being played, or b) the music to a ballet or opera, not the words or story.

sound collage: a collection of various sound samples meaningfully arranged to express an idea or emotion that a composer is trying to convey; it is like a sound-painting.

suite: a musical form inspired by dance, consisting of several movements with contrasting moods and rhythms.

symphony: a large piece for orchestra, usually in several movements.

tempo: a term that indicates the pace of the music.

texture: the overall sound or quality created when all of the elements of a piece of music come together.

timbre: the characteristic quality of a sound that allows the sound to be distinguished from another even if they share the same pitch and loudness; often referred to as tone quality or tone color.

toccata: from the Italian word for “to touch,” a toccata is a type of instrumental music that finds a keyboard musician touching as many parts of the instrument as possible, as rapidly as possible.

theme and variations: a compositional procedure in which a theme is stated and then altered in successive statements.

waltz: a ballroom dance in ¾ time with a strong accent on the first beat, or the music to accompany such a dance.
### Grade 3: Music

#### 1.0 Artistic Perception
*Processing, Analyzing, and Responding to Sensory Information Through the Language and Skills Unique to Music*

| 1.1 | Read, write, and perform simple rhythmic patterns using eighth notes, quarter notes, half notes, dotted half notes, whole notes, and rests. |
| 1.3 | Identify melody, rhythm, harmony, and timbre in selected pieces of music when presented aurally. |
| 1.4 | Identify visually and aurally the four families of orchestral instruments and male and female adult voices. |
| 1.5 | Describe the way in which sound is produced on various instruments. |

#### 2.0 Creative Expression
*Creating, Performing, and Participating in Music*

| 2.1 | Sing with accuracy in a developmentally appropriate age range. |
| 2.3 | Play rhythmic and melodic ostinatos on classroom instruments. |
| 2.4 | Create short rhythmic and melodic phrases in question-and-answer form. |

#### 3.0 Historical and Cultural Context
*Understanding the Historical Contributions and Cultural Dimensions of Music*

| 3.1 | Identify the uses of music in various cultures and time periods. |

#### 4.0 Aesthetic Valuing
*Responding to, Analyzing, and Making Judgments About Works of Music*

| 4.1 | Select and use specific criteria in making judgments about the quality of a musical performance. |
| 4.2 | Create developmentally appropriate movements to express pitch, tempo, form, and dynamics. |
| 4.3 | Describe how specific musical elements communicate particular ideas or moods in music |

#### 5.0 Connections, Relationships, Applications
*Connecting and Applying What is Learned in Music to Learning in Other Art Forms and Subjects Areas and to Careers*

| 5.1 | Identify the use of similar elements in music and other art forms (e.g., form, pattern, rhythm). |
| 5.2 | Identify what musicians and composers do to create music |
### Grade 3: Theatre

**1.0 Artistic Perception**  
*Processing, Analyzing, and Responding to Sensory Information Through the Language and Skills Unique to Theatre*

| 1.1 | Use the vocabulary of theatre, such as character, setting, conflict, audience, motivation, props, stage areas, and blocking, to describe theatrical experiences. | 1, 3 |
| 1.2 | Identify who, what, where, when, and why (the five Ws) in a theatrical experience. | 1, 3 |

**2.0 Creative Expression**  
*Creating, Performing, and Participating in Theatre*

| 2.1 | Participate in cooperative scriptwriting or improvisations that incorporate the five Ws. | 3 |
| 2.2 | Create for classmates simple scripts that demonstrate knowledge of basic blocking and stage areas. | 3 |

**3.0 Historical and Cultural Context**  
*Understanding the Historical Contributions and Cultural Dimensions of Theatre*

| 3.2 | Identify universal themes in stories and plays from different periods and places | 1, 2, 4 |

**4.0 Aesthetic Valuing**  
*Responding to, Analyzing, and Critiquing Theatrical Experiences*

| 4.2 | Compare the content or message in two different works of theatre. | 1, 4 |

**5.0 Connections, Relationships, Applications**  
*Connecting and Applying What is Learned in Theatre, Film/Video, and Electronic Media to Other Art Forms and Subject Areas and to Careers Critiquing Theatrical Experiences*

| 5.1 | Use problem-solving and cooperative skills to dramatize a story or a current event from another content area, with emphasis on the five Ws. | 1, 3, 4 |
| 5.2 | Develop problem-solving and communication skills by participating collaboratively in theatrical experiences. | 3 |

### Grade 3: Visual Arts

**2.0 Creative Expression**  
*Creating, Performing, and Participating in Visual Arts*

<p>| 2.1 | Explore ideas for art in a personal sketchbook. | 1, 4 |</p>
<table>
<thead>
<tr>
<th>Grade 4: Music</th>
<th>1.0</th>
<th>1.3</th>
<th>Read, write, and perform rhythmic notation, including sixteenth notes, dotted notes, and syncopation.</th>
<th>1, 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Artistic Perception</strong></td>
<td></td>
<td>1.4</td>
<td>Describe music according to its elements, using the terminology of music.</td>
<td>1, 2, 3</td>
</tr>
<tr>
<td><em>Processing, Analyzing, and Responding to Sensory Information Through the Language and Skills Unique to Music</em></td>
<td></td>
<td>1.5</td>
<td>Classify how a variety of instruments from diverse cultures produce sound.</td>
<td>4</td>
</tr>
<tr>
<td><strong>Creative Expression</strong></td>
<td></td>
<td>2.2</td>
<td>Use classroom instruments to play melodies and accompaniments from a varied repertoire of music from diverse cultures, including rounds, descants, and ostinatos, by oneself and with others.</td>
<td>1, 2, 3</td>
</tr>
<tr>
<td><em>Creating, Performing, and Participating in Music</em></td>
<td></td>
<td>2.3</td>
<td>Compose and improvise simple rhythmic and melodic patterns on classroom instruments.</td>
<td>1, 2, 3</td>
</tr>
<tr>
<td><strong>Historical and Cultural Context</strong></td>
<td></td>
<td>3.4</td>
<td>Compare musical styles from two or more cultures</td>
<td>1</td>
</tr>
<tr>
<td><em>Understanding the Historical Contributions and Cultural Dimensions of Music</em></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Aesthetic Valuing</strong></td>
<td></td>
<td>4.1</td>
<td>Use specific criteria when judging the relative quality of musical performances.</td>
<td>1, 3</td>
</tr>
<tr>
<td><em>Responding to, Analyzing, and Making Judgments About Works of Music</em></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Connections, Relationships, Applications</strong></td>
<td></td>
<td>5.1</td>
<td>Identify and interpret expressive characteristics in works of art and music.</td>
<td>1, 2, 3</td>
</tr>
<tr>
<td><em>Connecting and Applying What is Learned in Music to Learning in Other Art Forms and Subject Areas and to Careers</em></td>
<td></td>
<td>5.2</td>
<td>Integrate several art disciplines (dance, music, theatre, or the visual arts) into a well-organized presentation or performance.</td>
<td>1, 3, 4</td>
</tr>
</tbody>
</table>
### Grade 4: Theatre

**1.0 Artistic Perception**  
Processing, Analyzing, and Responding to Sensory Information Through the Language and Skills Unique to Theatre

1.2 Identify a character’s objectives and motivations to explain that character’s behavior.  
1.3 Describe how voice (diction, pace, and volume) may be used to explore multiple possibilities for a live reading.

**2.0 Creative Expression**  
Creating, Performing, and Participating in Theatre

2.1 Demonstrate the emotional traits of a character through gesture and action.  
2.3 Design or create costumes, props, makeup, or masks to communicate a character in formal or informal performances.

**4.0 Aesthetic Valuing**  
Responding to, Analyzing, and Critiquing Theatrical Experiences

4.2 Compare and contrast the impact on the audience of theatre, film, television, radio, and other media.

**5.0 Connections, Relationships, Applications**  
Connecting and Applying What is Learned in Theatre, Film/Video, and Electronic Media to Other Art Forms and Subject Areas and to Careers

5.2 Use improvisation and dramatization to explore concepts in other content areas.  
5.3 Exhibit team identity and commitment to purpose when participating in theatrical experiences.

### Grade 4: Visual Arts

**3.0 Historical and Cultural Context**  
Understanding the Historical Contributions and Cultural Dimensions of the Visual Arts

3.1 Describe how art plays a role in reflecting life
## Grade 5: Music

### 1.0 Artistic Perception
*Processing, Analyzing, and Responding to Sensory Information Through the Language and Skills Unique to Music*

1.2 Read, write and perform major and minor scales

1.3 Read, write, and perform rhythmic notation, including quarter note triplets and tied syncopation.

1.4 Analyze the use of music elements in aural examples from various genres and cultures.

1.5 Identify vocal and instrumental ensembles from a variety of genres and cultures.

### 2.0 Creative Expression
*Creating, Performing, and Participating in Music*

2.2 Use classroom instruments to play melodies and accompaniments from a varied repertoire of music from diverse cultures, including rounds, descants, and ostinatos and two-part harmony, by oneself and with others.

2.3 Compose, improvise, and perform basic rhythmic, melodic, and chordal patterns independently on classroom instruments.

### 3.0 Historical and Cultural Context
*Understanding the Historical and Cultural Dimensions of Music*

3.1 Describe the social functions of a variety of musical forms from various cultures and time periods.

### 4.0 Aesthetic Valuing
*Responding to, Analyzing, and Making Judgments About Works of Music*

4.1 Identify and analyze differences in tempo and dynamics in contrasting musical selections.

4.2 Develop and apply appropriate criteria to support personal preferences for specific musical works.

### 5.0 Connections, Relationships, Applications
*Connecting and Applying What is Learned in Music to Learning in Other Art Forms and Subject Areas and to Careers*

5.1 Explain the role of music in community events

5.2 Identify ways in which the music professions are similar or different from one another.
### Grade 5: Theatre

<table>
<thead>
<tr>
<th>1.0</th>
<th>Artistic Perception</th>
<th>1.2</th>
<th>Identify the structural elements of plot in a script or theatrical experience</th>
<th>Found in: 1, 3, 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Processing, Analyzing, and Responding to Sensory Information Through the Language and Skills Unique to Theatre</td>
<td>2.0</td>
<td>Creative Expression</td>
<td>2.1</td>
</tr>
<tr>
<td></td>
<td>Creating, Performing, and Participating in Theatre</td>
<td>2.3</td>
<td>Collaborate as an actor, director, scriptwriter, or technical artist in creating formal or informal theatrical performances</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>3.0</td>
<td>Historical and Cultural Context</td>
<td>3.1</td>
<td>Select of create appropriate props, sets, and costumes for a cultural celebration or pageant.</td>
</tr>
<tr>
<td></td>
<td>Understanding the Historical Contributions and Cultural Dimensions of Theatre</td>
<td>3.2</td>
<td>Interpret how theatre and storytelling forms (past and present) of various cultural groups may reflect their beliefs and traditions.</td>
<td>1, 2, 3, 4</td>
</tr>
<tr>
<td></td>
<td>3.3</td>
<td>Analyze ways in which theatre, television, and film play a part in our daily lives.</td>
<td>1, 3, 4</td>
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</tbody>
</table>

### Grade 5: Visual Arts

<table>
<thead>
<tr>
<th>2.0</th>
<th>Creative Expression</th>
<th>2.7</th>
<th>Communicate values, opinions, or personal insights through an original work of art.</th>
<th>Found in: 2, 3, 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Creating, Performing, and Participating in the Visual Arts Skills Unique to Theatre</td>
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</tbody>
</table>
### Books for Children and Young People
(in English)

**Bach and Baroque Music (Masters of Music)**
by Stefano Catucci, Hans Tid;
illustrated by Sergio, Manuela Cappon, and Giampaolo Faleschini
A giant among composers and musicians of Europe’s pre-Classical era, Johann Sebastian Bach (1685-1750) was master of the dominant musical style of his period—the Baroque. This book is a fascinating introduction to the great composer and some of the greatest music ever played.
For ages 9 to 13.

**Beethoven and the Classical Age (Masters of Music)**
by Andrea Bergamini;
illustrated by Manuela Cappon
This biography of one of the world’s most important and revolutionary composers sketches the details of Ludwig van Beethoven’s life. Readers get insight into his methods of composition, see full-color illustrations that accurately show several pianos he used for performance and composition, and learn about his friends and associates both inside and outside the musical world.
For ages 9 to 13.

**Big Talk: Poems for Four Voices**
by Paul Fleischmann;
illustrated by Beppe Giacobbe
A book of poems for four voices that sound like music when read aloud! The poems tell descriptive humorous stories of life.
For ages 8 to 14.

**Charlie Parker Played Be Bop**
by Chris Raschka
This book explores the world of jazz through a sparse, rhythmic, repetitive text. Great illustrations add movement and light to the words.
For ages 4 to 8.

**Duke Ellington**
by Andrea Davis Pinkney and Brian Pinkney
A children’s story of Duke Ellington—how he grew up learning music and entertaining people and how he and his music became famous, with wonderful woodcut illustrations.
For ages 5 and up.

**I See Rhythm**
by Toyomi Igus
Poems and paintings combine to give a succinct overview of African American music from African origins and slave songs to ragtime, the blues, big band, and bebop. Follow the music further through jazz, gospel, rhythm and blues, rock, hip-hop and rap.
For ages 10 to 14.

**Jazz Fly**
by Matthew Gollub
A fly meets several animals along the way to a jazz performance. Once he arrives at the jazz club, the fly integrates the sounds of the animals he met into his music and the audience loves it. The included CD features the author’s narration in scat style, with jazz accompaniment.
For ages 4 to 8.

**John Coltrane’s Giant Steps**
by Chris Raschka
John Coltrane’s musical composition is performed by a box, a snowflake, some raindrops, and a kitten.
For ages 4 to 8.

**Joyful Noise**
by Paul Fleischman; illustrated by Eric Beddows
A book of poems for two voices that sound like music when read aloud! Each poem is a whimsical tale of insects and creatures of nature.
For ages 9 and up.

**Kaleidonotes & the Mixed-Up Orchestra**
by Matthew S. Er Bronson,
Tammy Carter Bronson
The Kaleidonotes help the orchestra find their places on stage so the show can go on. In addition to enjoying a funny, rhyming story, children will learn to identify colors, instruments, notes, scale, and stage positions.
For ages 4 to 8.

**Kids Make Music!**
by Avery Hart and Paul Mantell
Great information, lively activities, and instrument-building ideas in a joyful format guaranteed to make music fun.
For ages 3 and up.

**Meet the Orchestra**
by Ann Hayes; illustrated by Karmen Thompson
An introduction to the instruments of the orchestra with fun illustrations.
For ages 3 to 6.
Mole Music
by David McPhail
A sweet and simple story of Mole, a creature who finds inspiration and hope when he discovers the joy of music!
For ages 5 to 10.

A Mouse Called Wolf
by Dick King-Smith; illustrated by Jon Goodell
A mouse with a special name discovers his musical talents and shares them with a widowed concert pianist.
For ages 7 to 10.

Musical Instruments
(Scholastic Voyages of Discovery, Music and Performing Arts)
A stunning book that will intrigue older children with its beautiful illustrations and historical perspective.
For ages 8 to 11.

My First Music Book
by Helen Drew
Step-by-step instrument building for budding young musicians. Extremely easy to follow and lovely to look at.
For ages 4 to 10.

Not the Piano, Mrs. Medley!
by Evan Levine; illustrated by S.D. Schindler
Going to the beach can be great fun. Getting to the beach can be something else, especially when your grandmother prefers to travel with music—like Mrs. Medley!
For ages 5 to 10.

A Noteworthy Tale
by Brenda Mutchnik; illustrated by Ian Penney
The imaginative tale of Notso Profundo, a young musician who rescues Melisma Tone-Cluster from the evil Konrad Troubleclef. Konrad has devised a terrible plan to put an end to all music!
For ages 6 to 9.

The Philharmonic Gets Dressed
by Karla Kuskin; illustrated by Marc Simont
The 105 members of the orchestra are shown showering, dressing, traveling and setting themselves up on stage for an evening’s concert.
For ages 4 to 8.

Rubber Band Banjos and a Java Jive Bass: Projects and Activities on the Science of Music and Sound
by Alex Sabbath; illustrated by Laurel Aiello
Instrument building and science experiments that will delight the budding Albert Einstein!
For ages 8 to 12.

The Sandy Bottom Orchestra
by Garrison B. Keillor and Jenny Lind Nilsson
Fourteen-year old Rachel learns to deal with her eccentric family while taking refuge in her violin playing.
For ages 8 to 12.

Sebastian
by Jeanette Winter
The story of Johann Sebastian Bach is written and illustrated for children in a magical way as we see Sebastian grow up in the days of castles and kings.
For ages 4 to 8.

Spider Storch’s Music Mess
by Gina Willner-Pardo; illustrated by Nick Sharratt
Spider Storch doesn’t like it when his classmates make fun of him for playing the flute, so he schemes to get thrown out of music class!
For ages 7 to 10.

The Story of the Incredible Orchestra
by Bruce Koscielniak
The history of the orchestra told in an engaging style with fun illustrations.
For ages 5 to 9.

The Story of the Orchestra
by Robert Levine (includes compact disc)
Think of Classical Music for Dummies for Kids! A fun book filled with interesting tidbits of information—plus a CD for listening!
For ages 8 to 11.

Talking Music
by William Duckworth
An exploration of 20th century American experimental music presented through conversations between the author and 16 more or less well-known composers, each of whom is broadly classified as experimentalist, avant-gardist, minimalist, performance artist, or post-modern.
For ages 15 and up.

Understanding Music
by Judy Tatchell
Lots of great facts on classical music, jazz, rock ‘n’ roll and more!
For ages 7 to 11.

A Winter Concert
by Yuko Takao
A mouse attends a concert. When the pianist begins to play, music appears on the page as small dots of color that eventually envelop the audience and follow the mouse home.
For ages 4 to 8.
Zin! Zin! Zin! A Violin
by Lloyd Moss; illustrated by Marjorie Priceman
For ages 3 to 6.

Zoo Song
by Barbara Bottner
This is the story of three animals that are neighbors in the zoo: a singing hippo, a violin-playing lion, and a dancing bear. The three realize that performing together in harmony is more rewarding than performing separately.

Books for Children and Young People
(in Spanish)

Beethoven vive arriba
by Barbara Nichol, illustrated by Scott Cameron
The letters that 10-year-old Christoph and his uncle exchange show how Christoph’s feelings change for Mr. Beethoven, the eccentric boarder that shares his house.
For ages 4 to 8.

Belisario y el violin
by Maria Cristina Ramos
Belisario the worm wants to accompany Belinda the worm as she sings, but he has a problem: his violin is missing.
For ages 4 to 8.

Chaikovsky descubre América/
Tchaikovsky Discovers America
by Esther Kalman
This captivating story tells of a meeting between an 11-year-old girl and the famed composer Peter Ilyich Tchaikovsky at the opening of Carnegie Hall in 1891. Jenny’s diary entries tell of her encounter with the composer and form the basis of this charming tale.
For ages 9 to 12.

Te presento a la orquesta
by Ann Hayes, Karmen Thompson (Illustrator), Alma Flor Ada
Describes the role of each musical instrument in the orchestra.
For ages 4 to 8.

Books for Teachers
The following books have been recommended to further teachers’ enrichment of musical/listening experience, facilitate integration of musical activities in the classroom, suggest reading materials for students, and provide a resource of studies pertaining to music and cognitive development.

Enrichment of Listening Experience:

What to Listen for in Music
by Aaron Copland
This classic text is great introduction to classical music, particularly for music enthusiasts with very little or no musical background. It clearly explains fundamental concepts in music and demonstrates how to identify, listen to, and appreciate music across a vast range of musical eras, genres, and individual pieces.

Marsalis on Music
by Wynton Marsalis
Written by acclaimed jazz and classical performer Wynton Marsalis, Marsalis on Music shows discusses basic elements of music and how they are encountered in various musical styles. Chapters are divided into rhythm, form, wind bands and jazz bands, and practice, and a CD filled with musical examples is provided.

Classical Music for Dummies
by David Pogue and Scott Speck
Most of you are familiar with the “…for Dummies” series. This book, like every book in the series, presents essential ideas in a well-outlined and straight-to-the-point manner; very clear and concise.

Classical Music for Everybody
by Dhun H. Sethna
In this book, Sethna intensively explores classical music in snippets, examining the historical context of a given work as a means of engaging what it expresses in light of that context. It is a good book for newcomers to classical music, as well as a reference for those more experienced.
Integration of Musical Activities in the Classroom:

**Great Composers and Their Music:**
50 Ready-to-Use Activities for Grades 3-9
This book offers a fun and wide selection of activities from creative drawing, writing, to other enrichment projects, all of which center on musical themes. The skill levels are included (beginning, intermediate, and advanced). Most of the activities are geared toward beginning and intermediate levels and would be best for elementary students.

**Classic Tunes and Tales: Ready-to-Use Music Listening Lessons and Activities for Ages 5-13**
by Tod F. Kline
This book provides K-8 music teachers with a set of lesson plans to familiarize students with music fundamentals. There are plenty of fun activities that are formatted clearly in the following manner: lesson plan page defines the learning objectives, story page explains the background of a given work, music page explores musical excerpts, and activity page provides the students with games, puzzles, and other fun activities meant to reinforce the lesson.

**Books for your Students:**
The following books, written by Mike Venezia, belong to the (Getting to Know the World’s Greatest Composers) series, published by Children’s Press.
These books are biographies for young people that include plenty of pictures (as well as cartoons) to illustrate in an entertaining manner the life of a given composer and the historical context in which he lived.

- **Aaron Copland**
  (Getting to Know the World’s Greatest Composers).
- **Duke Ellington**
  (Getting to Know the World’s Greatest Composers).
- **Frederic Chopin**
  (Getting to Know the World’s Greatest Composers).
- **George Gershwin**
  (Getting to Know the World’s Greatest Composers).
- **George Handel**
  (Getting to Know the World’s Greatest Composers).
- **Igor Stravinsky**
  (Getting to Know the World’s Greatest Composers).
- **Johannes Brahms**
  (Getting to Know the World’s Greatest Composers).
- **Johann Sebastian Bach**
  (Getting to Know the World’s Greatest Composers).
- **Leonard Bernstein**
  (Getting to Know the World’s Greatest Composers).
- **Ludwig Van Beethoven**
  (Getting to Know the World’s Greatest Composers).
- **Peter Tchaikovsky**
  (Getting to Know the World’s Greatest Composers).
- **Wolfgang Amadeus Mozart**
  (Getting to Know the World’s Greatest Composers).

**Music and Cognitive Development:**

- **The Mozart Effect for Children: Awakening Your Child’s Mind, Health and Creativity with Music**
  by Don G. Campbell
  William Morrow and Co., 2000,

- **Good Music, Brighter Children**
  by Sharlene Habermeyer

**Books by or about FRANK O. GEHRY:**

- **Flowing In All Directions**
  by Frank Gehry

- **Gehry Talks: Architecture + Process**
  by Frank Gehry

- **Symphony: Frank Gehry’s Walt Disney Concert Hall**
  by Frank Gehry

- **Frank O. Gehry: The Complete Works**
  by Forster and Dal Co
**Web Sites**

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Los Angeles Philharmonic: Nurturing curiosity, creativity, virtuosity

Through the LA Phil’s thriving education and community programs, the LA Phil displays its commitment to the future of music and the very well-being of our city. We support the next generation of artists through YOLA’s intensive after-school orchestral training and initiatives that support the development of young composers. We ignite the first spark of interest in symphonic music when school buses take over Grand Avenue and more than 13,000 children stream into Walt Disney Concert Hall. As a result, our community is becoming vibrant in the arts. Together we listen, we learn, and we make music. As Music Director Gustavo Dudamel has said, “The orchestra is a perfect metaphor for community.”

Please visit [www.laphil.com/education](http://www.laphil.com/education) or call 213.972-0704 to learn more about the ways teachers, students, and families can be involved in the LA Phil.

Teachers: don’t forget to schedule a field trip to visit the Hollywood Bowl!

This is a place full of history and hidden treasures. You can become a part of its history. Legend has it that in 1864 a group of men traveling from Mexico carried a war chest toward San Francisco. In that chest was nearly a quarter of a million dollars worth of gold, diamonds and jewels! Upon arriving in San Francisco, the men discovered that the city was teeming with French spies! So, they immediately buried the treasure for safekeeping. Soon after, a stranger found the treasure and headed for Los Angeles. The stranger stopped to spend the night in the hills north of the city. That night he dreamed the treasure was cursed! He quickly buried it in the hillside and never returned. Meanwhile, the men who had first carried the treasure to San Francisco had already fallen under the treasure’s curse and died. Years later, knowing the treasure remained buried in the hillsides north of Los Angeles, a group of men began a search. They believed the treasure to be here at the Hollywood Bowl! In 1939, they received permits from the County to dig, but soon cancelled the dig for fear of the curse. Another man continued the dig, but he never found the treasure and became so depressed he felt he could not go on. He too fell under the treasure’s curse. The treasure has never been found! If you are brave enough, you may begin your treasure hunt here!

Plan a field trip to the Hollywood Bowl and Hollywood Bowl Museum. Please call 323.860.2058 for more information.