

DISCOVERY

CONCERT
SERIES



SHOOT FOR THE MOON

Classroom Guide for Teachers

HARTFORD SYMPHONY ORCHESTRA

THE 2018-19 DISCOVERY CONCERT SERIES IS SPONSORED IN PART BY THE MAXIMILIAN E. AND MARION O. HOFFMAN FOUNDATION



for tickets, contact the HSO Education Office at mengel@hartfordsymphony.org

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Written by Miriam Engel

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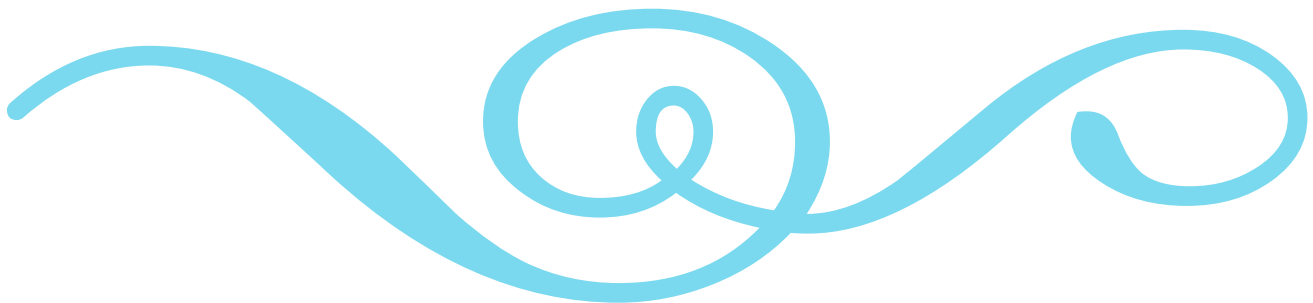
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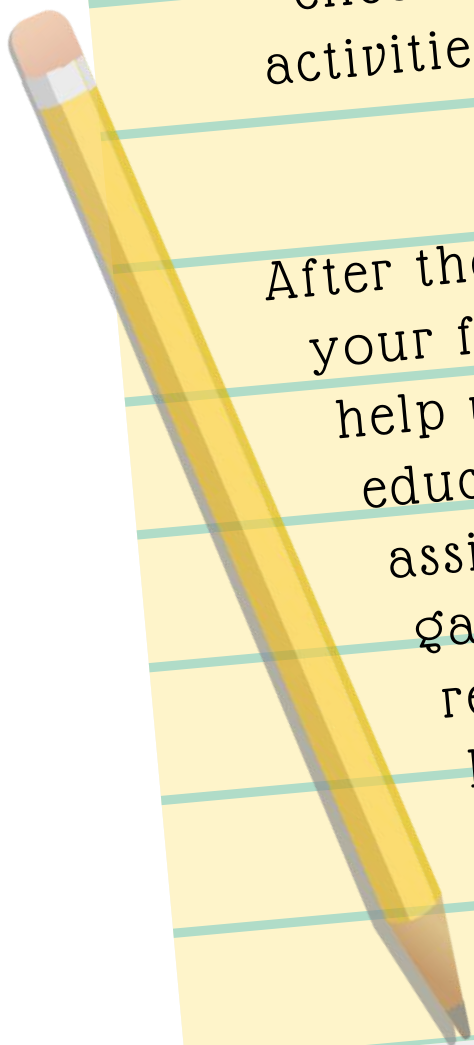




Welcome!

We are thrilled that you will join us for
SHOOT FOR THE MOON!

This Guide is designed to support you in preparing your students for the concert. We encourage you to make these lessons and activities your own, and integrate them into your regular curriculum.



After the concert, we would be grateful for your feedback. Your responses not only help us continue to develop our educational programming, but they also assist our Development department in gathering the generous funding we receive each year to put on programs like this one!

See you soon!

SHOOT FOR THE MOON

ADAM KERRY BOYLES | conductor and host
HARTFORD SYMPHONY ORCHESTRA



Visit <https://tinyurl.com/y49uz9nk>
 to check out the Spotify playlist!



Mission Impossible
 Main Theme

Lalo Schifrin
 arr. Calvin Custer

Fanfare for the Common Man

Aaron Copland

Lyric for Strings

George Walker

Night Ride and Sunrise

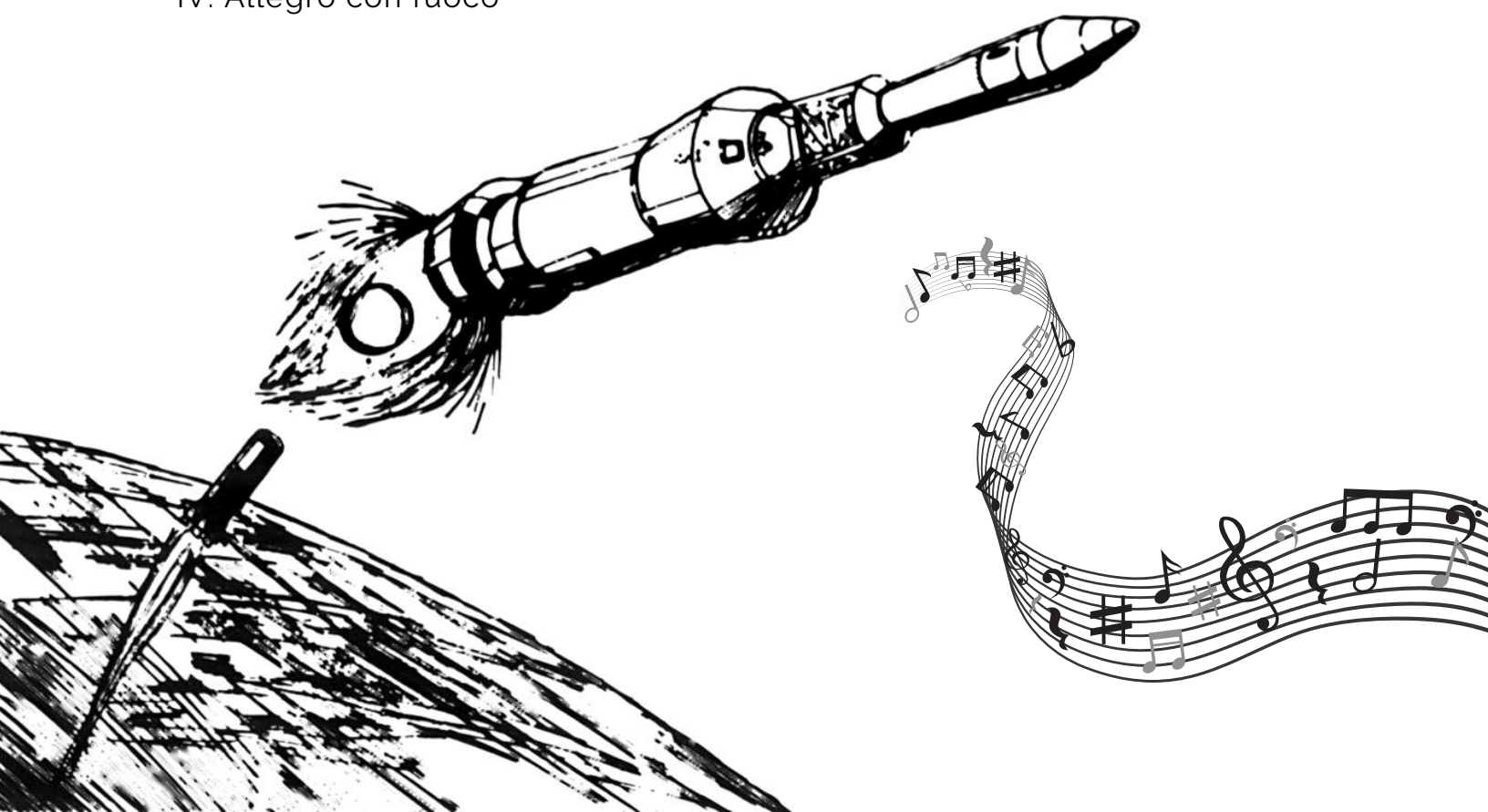
Jean Sibelius

Sinfonia (for Orbiting Spheres)

Missy Mazzoli

Symphony No. 9 in E minor, "From the New World"
 IV. Allegro con fuoco

Antonín Dvořák





meet the composers



Lalo Schifrin

TRIVIA: Although he grew up in a musical family, and studied piano from age 6, Schifrin started college studying sociology and law. At age 20, he decided to pursue music professionally and moved from Argentina to France to study at the Paris Conservatory.

Born 1932; Argentinian | 🎵 *Mission Impossible: Main Theme*



Aaron Copland

TRIVIA: Copland wrote his "Fanfare" as the United States was entering World War II, and has been used many times in the years since to evoke patriotic sentiment. It was even used on two space shuttle missions as the wake-up music, which the astronauts heard as they viewed Earth from space.

1900-1990; American | 🎵 *Fanfare for the Common Man*



George Walker

TRIVIA: Walker wrote his "Lyric for Strings" to honor the memory of his grandmother, a former slave. Although his African American heritage made him the first black person to achieve various distinctions, Walker wanted to be recognized as an American pianist-composer without qualification by race.

1922-2018; American | 🎵 *Lyric for Strings*



Jean Sibelius

TRIVIA: Sibelius once said, "Pay no attention to what the critics say. No statue has ever been erected in honor of a critic." Nevertheless, after years of unsuccessfully pursuing a career as a professional violinist, Sibelius recognized that his compositions, instead, would bring him the critical acclaim he desired.

1865-1957; Finnish | 🎵 *Night Ride and Sunrise*



Missy Mazzoli

TRIVIA: Mazzoli's first album wasn't tentative music-making, it was a bold concept: an experimental rock opera about the life of a female mountain climber. Mazzoli encourages young composers today to be similarly bold by learning to set aside the vulnerability that comes with creativity.

Born 1980; American | 🎵 *Sinfonia (for Orbiting Spheres)*



Antonín Dvořák

TRIVIA: The astronomical community recognized the Dvořák's legacy when astronaut Neil Armstrong played a tape recording of the "New World Symphony" on the Apollo 11 mission to the moon. Five years later, a Czech astronomer discovered a new planet and named it 2055 Dvořák, after the composer.

1841-1904; Czech | 🎵 *Symphony No. 9, "From the New World"*

meet the conductor



ADAM KERRY BOYLES

- Director of Orchestras, MIT
- Assistant Conductor, Hartford Symphony Orchestra

Formerly the Music Director of...

- Brookline Symphony Orchestra
- Southern Arizona Symphony Orchestra
- MetroWest Opera
- Opera in the Ozarks

Also an accomplished vocalist,

Boyles has performed in numerous operas and with many professional choral ensembles across the country, including as a guest soloist with the Tanglewood Festival Chorus.



Formerly on the faculty of...

- University of Texas, Austin
- University of Arizona

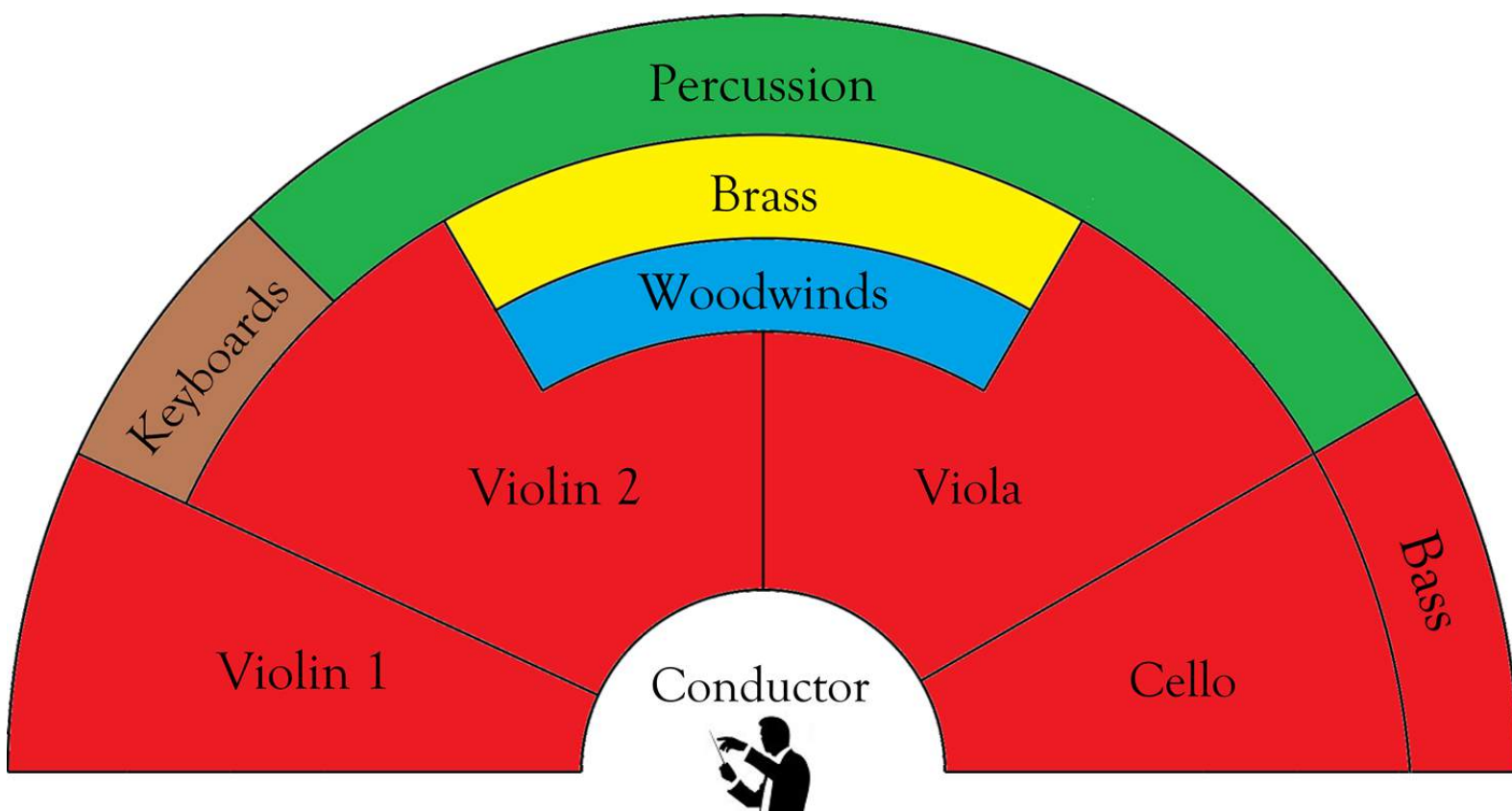
D.M.A. University of Texas at Austin

M.M. University of Arizona

B.M. Indiana University



The **CONDUCTOR** stands front and center onstage and leads the orchestra. He or she uses a **BATON** to show the musicians when to play, as well as how loud or soft, fast or slow, choppy or smooth, aggressive or gentle.





meet the orchestra



MISSION

To enrich lives and community through great music.

First public performance at West Middle School in Hartford

Founded in 1934 during the Great Depression

100+

concerts a year, from chamber music to full orchestra

A regular concert series for children began in 1953

FAMILIES OF THE ORCHESTRA

Keyboards

These instruments don't belong to any of the four traditional orchestral families, so they are often grouped together as "Keyboards;" however, some people say they belong to the String Family. Can you guess why?



Harp



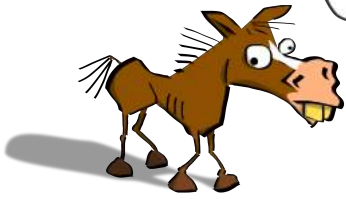
Piano



Celesta

The String Family

Musicians use a bow with hair from my tail to play these string instruments!



Violin



Viola



Cello



Double Bass



The Woodwind Family



Recorder



Piccolo



Flute



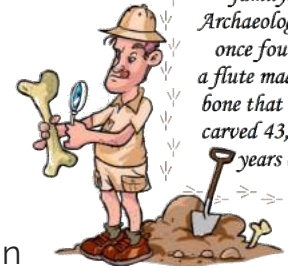
Clarinet



Oboe



Bassoon



The oldest instrument in the world is in the woodwind family. Archaeologists once found a flute made of bone that was carved 43,000 years ago!

The Brass Family



Trumpet



French Horn



Trombone

Tuba



Conch shells and shofars (rams' horns) were the ancestors of today's brass family



The Percussion Family



Snare Drum



Bass Drum



Timpani

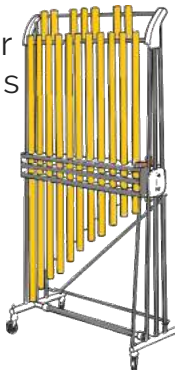


Cymbals



Xylophone

Tubular Bells



There are 2 main categories of percussion: **PITCHED**, meaning that it makes a sound on a specific note, and **UNPITCHED**, which means it makes noise without sounding a specific note.

Can you guess which of these instruments here belong in each category?



Triangle

Tambourine



lesson plans



MUSIC VOCABULARY

CHORD Notes sounding together

CRESCENDO Music getting louder

DIMINUENDO Music getting softer

DYNAMICS Loudness or softness of music

FORTISSIMO Very loud volume

HARMONY Chords with a pleasing sound

KEY The group of notes on which the tune is based. A **major key** sounds cheery, and a **minor key** sounds mournful. The difference is the third note of the scale, which is lower in the minor key.

LEGATO Music played smoothly

MELODY The tune of the music

PIANISSIMO Very soft volume

RHYTHM The pattern of sounds and silences

SCORE Music written down

STACCATO Music played in a disconnected way

TEMPO The speed of the music

UNISON Multiple musical voices sounding at the same time on the same note



lesson plans



MISSION TIMELINE: TO THE MOON

Using the dates below, construct a timeline so that students can understand the musical program in context.

COMMON CORE STATE STANDARDS

Social Studies - History - Change, Continuity and Context: Create and use a chronological sequence of related events to compare developments that happened at the same time.

Social Studies - History - Historical Sources and Evidence: Explain how historical sources can be used to study the past.

English Language Arts & Literacy - Speaking & Listening - Presentation of Knowledge and Ideas: Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.

NATIONAL CORE ARTS STANDARDS

Music - Connecting - Anchor Standard 11: Relate artistic ideas and works with societal, cultural, and historical context to deepen understanding.

OBJECTIVES

- => Students will be able to place the repertoire selections on this program in a historical context.
- => Students will consider how the interaction of different historical events affects the present day.



Years of Composition

- Mission Impossible (Schifrin): 1966
- Fanfare for the Common Man (Copland): 1942
- Lyric for Strings (Walker): 1946
- Night Ride and Sunrise (Sibelius): 1908
- Sinfonia (for Orbiting Spheres) (Mazzoli): 2013
- Symphony No. 9, "From the New World" (Dvořák): 1893



A profile of the moon

- **Aryabhata:** In 499 C.E., Indian astronomer Aryabhata calculated the length of a year and of a day as only minutes and seconds over modern estimates.
- **Babylonians:** In about 1000 B.C.E., Babylonian astronomers first observed and documented lunar movements, establishing 27 days as the length of the moon's orbit around the Earth.
- **Galilei:** In 1609, Galileo Galilei drew one of the first images that depicted the moon not as smooth but with mountains and craters.
- **Lyly:** In 1591, English writer John Lyly wrote one of the first references to the man in the moon: "There liveth none under the sunne, that knows what to make of the man in the moone."
- **Proctor:** In the 1870s, English astronomer Richard Proctor determined that lunar craters were not the result of volcanic eruptions but instead were caused by meteors colliding with the moon's surface.

From Sputnik to steps on the moon

- **Apollo 1 cabin fire:** In 1967, a launch rehearsal for the Apollo 1 mission ended in tragedy when a fire in the cabin killed its 3 astronauts.
- **Kennedy's Charge:** President Kennedy's May 1961 speech committed to getting a U.S. astronaut to the moon by the end of the decade.
- **Moon landing:** On July 20, 1969, Apollo 11's lunar module landed on the moon, and Commander Neil Armstrong and lunar module pilot Buzz Aldrin walked on the moon's surface.
- **Satellites:** In 1957, the Soviet launched the artificial satellite, Sputnik, which was the first of its kind to orbit the Earth. In response to the Soviet achievement, the U.S. entered the Space Race by launching their own satellite, Vanguard, which exploded 4 seconds after liftoff.
- **Space Race:** In April 1961, the competition had moved on to human spaceflight, and again the Soviet Union beat the U.S. by only 23 days.



SOARING THROUGH OUR SOLAR SYSTEM

Solve the word problems and answer the multiple-choice questions below.

COMMON CORE STATE STANDARDS

Math - Operations and Algebraic Thinking: Represent and solve problems involving addition and subtraction.

Math - Measurement and Data: Represent and interpret data.

Science - Space Systems: Stars and the Solar System: Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky.

NATIONAL CORE ARTS STANDARDS

Music - Connecting - Anchor Standard 11: Relate artistic ideas and works with societal, cultural, and historical context to deepen understanding.

OBJECTIVES

=> Students will compare and contrast qualities and quantities related to the sun, moon and stars.

=> Students will become familiar with the basic timeline of the Apollo 11 mission.



1. Our planet Earth has only 1 moon. Other planets in our Solar System have multiple moons. Use the table below to make some comparisons:

MOONING ABOUT		
Planet	Diameter (miles)	# Moons
Mercury	3,032	0
Venus	7,521	0
Earth	7,926	1
Mars	4,220	2
Jupiter	86,881	79
Saturn	72,367	62
Uranus	31,518	27
Neptune	30,599	13

- a. The list above orders the planets based on their distance from the Sun. Can you rearrange them by their number of moons, from fewest to greatest? And by their diameter (the largest distance cutting across the planet)?
- b. Draw a picture of the Solar System, using the sizes of the planets according to their listed diameters, to make visual comparisons.
- c. Which planet is most similar to Earth in size and number of moons?
- d. As the planets get bigger, does the number of moons increase or decrease? Are there any outliers?
- d. How many total moons are in our Solar System?

2. Becoming an astronaut is a challenge! The "Mercury Seven," chosen for the first human spaceflight program, were selected from an applicant pool of more than 500 military pilots.

- a. From the 500 applications, NASA (the National Aeronautics and Space Administration) picked 110 pilots who qualified, but only brought 69 to Washington, D.C. for tests. How many people did they eliminate in this round?
- b. During the tests, 6 candidates were determined to be too tall, 33 flunked or dropped out of the exams, and 12 more refused to continue tests. How many people were left?
- c. To get to the 7 astronauts chosen for the program, how many total people did NASA eliminate?

3. What is the closest star to Earth?

- a. the North Star
- b. the Sun
- c. the Death Star

4. Why is the moon lit up at night?

- a. heat from the Sun during the day makes it glow
- b. radioactive volcanic craters
- c. reflection of light from the Sun

5. Which of these natural phenomena is caused by the moon's gravitational pull?

- a. ocean tides
- b. snowstorms
- c. rainbows



SHORT STORY WRITING

Shoot for the Moon is about pursuing our goals, and making what first seems impossible, possible. Write a story blurb where someone (it could be you!) sets a goal. Then, trade papers with a partner and continue their story by describing how the main character achieves the goal. Then, hand back the story to the original author and learn how your story ended!

COMMON CORE STATE STANDARDS

English Language Arts & Literacy - Writing - Text Types and Purposes: Write narratives in which they recount two or more appropriately sequenced events, include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure.

English Language Arts & Literacy - Writing - Production and Distribution of Writing: With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers, and add details to strengthen writing as needed.

English Language Arts & Literacy - Speaking and Listening - Comprehension and Collaboration: Ask and answer questions about key details in a text read aloud or information presented orally or through other media.

NATIONAL CORE ARTS STANDARDS

Creating - Anchor Standard 1: Generate and conceptualize artistic ideas and work.

Creating - Anchor Standard 2: Organize and develop artistic ideas and work.

Creating - Anchor Standard 3: Refine and complete artistic work.

Responding - Anchor Standard 8: Interpret intent and meaning in artistic work.

Connecting - Anchor Standard 10: Synthesize and relate knowledge and personal experiences to make art.

OBJECTIVES

=> Students will consider how setting goals can impact their lives, and how the idea of working hard, practicing, and trying again are things we *all* do.

=> Students will work collaboratively and share ideas, developing communication skills.



PLAN YOUR STORY

- Who's my main character? Is it me? _____
- What's the setting of the story? _____
- What's the goal I'm setting? _____



Book Recommendations

- **The Space Race: The Journey to the Moon and Beyond** | Sarah Cruddas
- **If You Decide To Go To The Moon** | Faith McNulty
- **This is the Way to the Moon** | Miroslav Sasek
- **Spacebusters: The Race to the Moon** | Philip Wilkinson
- **Footprints on the Moon** | Alexandra Siy

field trip day!



GETTING TO THE THEATER AND FINDING YOUR SEAT

Please plan to arrive no later than a half hour before the start of the performance. Students are seated by school, and it will take a long time to get everyone into their sections of the auditorium. If you are late, you may not be able to be seated.



Students are to disembark where their bus parks. Parking meters will be bagged along neighboring streets: Trinity, Capitol, and Buckingham. The meters will be bagged or designated with a “no parking” stake. Make a mental note of where you are parked.

Please enter the Bushnell complex through Mortensen Hall via Trinity Street or via the brick courtyard on Capitol Avenue.



Buses with students who need an accessible entrance should stop on the Trinity Street side, where the ramp is, and drop off only those students, along with at least one adult, then proceed to park at one of the bagged meters, at which point the other students, teachers, and chaperones will walk to the theater.

Ushers will be posted everywhere to guide you to your seats; let one of them know the name of your school and they will find your school on the map of the theater.



You will not receive actual tickets. When you arrive, an usher will direct you to the seats we have allocated for your school. Seating is determined based on special needs and group volume.

Please remain seated at the end of the performance. An usher will dismiss students by school from the stage.

field trip day!



HOW TO BE A GOOD AUDIENCE MEMBER

All students, regardless of age, need an escort to leave the auditorium to use the restroom or for any other purpose. Ushers will not allow unattended students to exit without an adult chaperone.



Anyone leaving the auditorium during the concert will have to wait for an appropriate break in the program to re-enter. People re-entering may not always be able to go back to their original seats depending on the program and may be asked to take available seats in the back.

Groups arriving after the start of the concert will be seated at the discretion of House Management.



Use of cameras, audio-video or other recording devices, cell phones, digital games, and music players is prohibited in the hall.

A chaperone will be required to sit in the front row with any group seated on an upper level.

Please arrange children in a desired seating order prior to entering the building. Once seating load-in begins, students must quickly move straight across, down the rows. The high number of audience members does not leave time to accommodate traffic jams caused by "boy/girl seating" or for certain classes to sit with each other, etc. Once a group is seated, teachers may move individual students within the section.

No one is allowed to sit on the floor or in the aisles at any time.



No hats may be worn inside the building.

No food or beverages are allowed in the building.



field trip day!



THE BUSHNELL CENTER FOR THE PERFORMING ARTS

You'll be seeing your Discovery Concert in **Mortensen Hall**, the 2,800-seat theater and original building of The Bushnell Center for the Performing Arts, the premier performing arts center in the region. The building was designed by the same architects as designed New York's famous Radio City Music Hall. The Bushnell opened in 1930, right at the beginning of the **Great Depression**.

Named for William H. Mortensen, The Bushnell's first managing director, Mortensen Hall is renowned as **one of the world's greatest examples of the Art Deco style**, an artistic style of the 1920s and 1930s that is recognizable by its bold geometric shapes and bright colors.



When you go into the theater, look up! You'll find **the largest hand-painted ceiling mural in the United States**, measuring 187 feet by 40 feet. That's 4 school buses long and 1 school bus wide!

The artist Barry Faulkner and his team called the mural "**Drama**," named for its artistic centerpiece, the Muse of Drama.

Surrounding the goddess are vivid representations of **performance, progress, and hope** from ancient mythological times to the 20th century. You'll find older symbols such as ancient images of the sun, moon, and stars — symbolizing light, knowledge, constancy, and eternity — as well as more modern icons like airplanes.

Try to spot as many of these symbols as you can!



show your love



THANK YOU

Our musicians love getting mail. Send them a personal thank-you note, or tell us right here on this page what you liked best about the performance!

Name: _____

School: _____

Grade: _____

TELL US ABOUT THE CONCERT YOU SAW WITH THE HARTFORD SYMPHONY ORCHESTRA!

Write or draw in the box below.

What was your favorite part of the concert and why? _____

Do you play an instrument? (circle one)

YES Which one? _____

NO What would you like to play? _____

Send via email to MEngel@hartfordsymphony.org or via snail mail to: Hartford Symphony Orchestra
ATTN: Education Office
166 Capitol Avenue
Hartford, CT 06106

show your love



Teachers, we want to hear from you too!

One of the most important steps that we take with schools and organizations with whom we have a relationship is to request your feedback.

Your responses are integral to our success.

First, your comments help us evaluate how well we are serving you and how we can improve.

Second, the hard data of student numbers, demographics, geographic spread, and other metrics are vital for providing a statistical profile of our outreach.

Finally, the stories you share about students' experiences illuminate our programs as having made specific and meaningful impact.

Your responses open doors. Feedback from you is essential for gathering the generous funding we receive each year to put on programs like these.

After this Discovery Concert, you'll get a SurveyMonkey link in your email. Please take five minutes to fill out the brief questionnaire. The first five responses will receive exclusive invitations for you and a guest to attend a dress rehearsal for an HSO Masterworks concert.

We are so grateful that you will be with us for this performance, and look forward to seeing you and your students in the audience.

Thank you!

contact us



Visit us online at www.hartfordsymphony.org

Call our Education Office at **860-760-7328**

Send an email to our Education Office at
MEngel@hartfordsymphony.org

Send us snail mail at **Hartford Symphony Orchestra**
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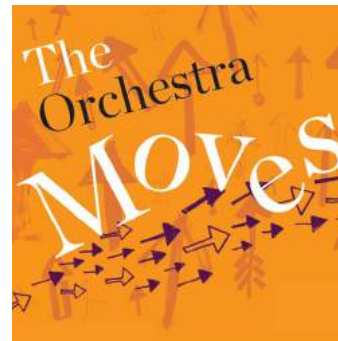
2019-20 Season Sneak Preview

Come back and see us again next year!



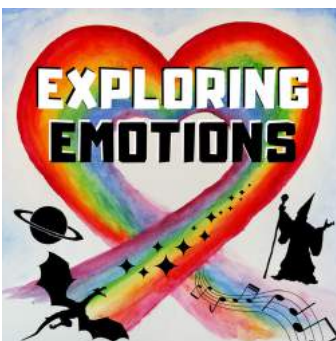
**The HSO and the
Case of the Missing
Ghost Lamp**

October 2019



**Link Up:
The Orchestra Moves
(Hartford Schools only)**

April 2020



**Exploring
Emotions**

March 2020



The Beethoven Games

May 2020