Reach for the Moon
John F. Kennedy’s Vision and Courage

National Symphony Orchestra Young People’s Concert 2016-17
Michael Butterman
conductor
Marissa Regni
NSO violinist & host

Dear Teacher:

Reach for the Moon delivers a fun-filled and informative experience for students and educators. We hope to delight your students with the orchestra and to impress them with President Kennedy’s message about courage. We also will introduce your students to different ways of listening to music.

We offer three integrated resources that work together to help you prepare students for the concert:

1. The Cuesheet Performance Guide is written for students and contains information about the concert program.

2. The ARTSEDGE Online Playlist provides select works from the program at http://goo.gl/pV6DH5

3. The Teacher Guide shares ideas on how to bring the Cuesheet, the ARTSEDGE Online Playlist, and multiple online resources and activities to life in the classroom.
Students (and their teachers!) will get more out of the NSO Young People’s Concert when they are prepared for the *Reach for the Moon* program in advance.

For starters, plan to use the **ARTSEDGE Online Playlist** which provides select works from the program for grades 3 and up. Many students will require at least two opportunities to engage with the music. We suggest these general tips:

- **Listen for yourself.** Spend some time alone with the Playlist and other resources. This prep time is invaluable as you bring these resources into the classroom.

- **Allow enough lead time.** Some teachers introduce students to the material weeks before the concert.

- **Prepare not only for the music but for the event.** For many students, this will be their first time at a concert with a full orchestra. They’ll be more comfortable if they know what to expect.

- **Most importantly, bring your own creativity to the process.** Check out the online resources we have provided below to enrich your teaching goals. Since each classroom is different, feel free to add your own ideas and activities.

The NSO Young People’s Concert connects to the National Content Standards for music, and other subject areas such as science, social studies, and language arts. For more about the standards, visit the ARTSEDGE website at www.kennedy-center.org/artsedge

FYI

There are many ways to connect and stay current with what’s happening at ARTSEDGE. Here are a few— including where best to interact with our team, our content, and others interested in arts education:

- Join our **Facebook** group to keep up with news, insights, and Facebook-only updates. This is a great place to connect with arts education supporters and other ARTSEDGE fans.

- The **Thinkfinity** Community is a great place to connect to a variety of interdisciplinary resources and conversations around content from across our Thinkfinity-partners— including other arts-focused partners like the National Endowment for the Humanities, the Smithsonian American History Museum, and National Geographic Education.

- Our **Twitter** feed is where we share short news items, provide info-bites, and quick updates.

- We are a Featured Provider on **iTunes**, Apple’s tool for downloading music, podcasts, and apps for mobile devices. From our **Publishers page**, you can download and subscribe to our free audio stories, video clips, and more.

- Our **YouTube** Channel features videos that we have produced. We have kept comments off to ensure the channel is safe for everyone.

- **Flickr** is a photo-sharing site; our photo-streams push out pictures from in and around the Kennedy Center.
Summary
During the concert, students will hear English composer Gustav Holst’s tribute to the red planet; American composer Mason Bates’s re-imagining of an astronaut’s spacewalk; and music by two of the world’s greatest composers—Johann Sebastian Bach and Ludwig van Beethoven—whose music is currently “streaming in space” on Voyager I and Voyager II.

Then, it’s off to battle to hear John Ireland’s stirring march written for the British people during World War II, and John Williams’s famous film score that captures an epic, intergalactic clash between good and evil.

Most importantly, your students will learn about President Kennedy’s vision and courage to make an impossible mission—possible.

The Concert Program
At the concert, students will hear the following works:


Mason Bates, “Gemini in the Solar Wind” from The B-Sides for orchestra and electronica

Johann Sebastian Bach, Violin Concerto in A minor, finale

Ludwig van Beethoven, Symphony No. 5, 1st mvmt. (excerpt)

John Ireland, *Epic March* (excerpt)

John Williams, *Star Wars*, Main Title Theme
Summary
Between 1914 and 1916, English composer Gustav Holst composed an orchestral suite based on the (then known) seven planets in the solar system. He referred to his piece as “a series of mood pictures.” Each movement was based on an astrological character; “Mars” is based on the Roman god of war.

Before
Direct students to page 3 of Cuesheet. Learn what was the inspiration behind Holst’s music and how composers use certain “tools” to create their music including pitch, rhythm, melody, tempo, and dynamics. Emphasize that when we listen to music, our brains can “see” images, “sense” values, and “feel” emotions.

During
During the concert, students will hear a performance of Holst’s “Mars.” Ask students to listen how Holst used his composer’s “tools” to create the sound of war. Tell them to pay special attention to certain instruments including the tuba and trumpet.

After
Discuss how the music made the students feel. What did they “see”?

GO DEEPER!
Want MORE on music?
Play a game of Perfect Pitch:
artsedge.kennedy-center.org/multimedia/AEMicrosites/perfect-pitch

Name that instrument! Don’t know the difference between a tuba and a trumpet? Consult the ARTSEDGE Instrument Spotter’s Guide:
artsedge.kennedy-center.org/multimedia/Interactives/instrument-spotters-guide/instrument-spotters-guide

Want MORE on Mars?
A closer look at Mars on the NASA website:
http://mars.nasa.gov/msl/multimedia/deepzoom

Send a message to Curiosity, our robot rover on Mars:
http://mars.nasa.gov/msl/participate/postcard

Want MORE about President Kennedy and the moon launch?
See and hear President Kennedy’s famous “reach for the moon” speech:
http://er.jsc.nasa.gov/seh/ricetalk.htm

See and hear astronaut Neil Armstrong land on the moon:
www.history.com/speeches/neil-armstrong-walks-on-the-moon

Writing Activity: “What would you say?”
We all know what Neil Armstrong said when he landed on the moon: “That’s one small step for man, one giant leap for mankind.” What would you say? Come up with your own famous saying as the first kid to land on the moon. Armstrong did it in under 60 characters. No pressure!
Summary
Back in the 1960s, NASA created Project Gemini to train astronauts for space travel including how to work with equipment in zero-gravity and how to leave the spacecraft and float in space. In “Gemini in the Solar Wind,” Mason Bates uses samples of NASA recordings and re-imagines astronaut Ed White’s famous Gemini IV spacewalk in 1965.

Before
Direct students to page 4 of Cuesheet. Encourage students to listen to how Bates blends his interests in electronica and spoken word with orchestral music. Ask them to imagine astronaut Ed White floating in space.

During
During the concert, students will hear “Gemini in the Solar Wind” from The B-Sides for orchestra and electronica performed live by Mason Bates and the NSO. Ask students to be ready to compare this listening experience with the other music performed in the concert. How is this different? The same?

After
Discuss how the recorded speech from astronaut Ed White made students feel? Ask students how they felt seeing Mason Bates perform live on stage with the orchestra.

GO DEEPER!
To learn more about Mason Bates, go to:
http://www.masonbates.com

Watch Bates perform “Gemini in the Solar Wind” at:
https://www.youtube.com/watch?v=CYpkGvtZzbM
Summary

When Voyager I and II were launched in 1977, a “golden record” that contained messages about life and culture on Earth was onboard. It took almost a year to compile these messages which included sounds, music, images, diagrams, and spoken languages.

There was also a special message from (then) President Jimmy Carter:

“This is a present from a small, distant world, a token of our sounds, our science, our images, our music, our thoughts and our feelings. We are attempting to survive our time so we may live into yours.”

One of the classical compositions included on the record is Violin Concerto in A minor by Johann Sebastian Bach. The work is a great example of the Baroque style of classical music which placed high value on the detailed structure of a composition.

Before

Direct students to pages 4–5 of Cuesheet. Read how the Voyager mission sent information about life and culture on Earth on a golden record to reach other intelligent life in the universe. Read about the life and times of Bach and how his music was admired for its technical skill, detailed patterns, and sheer beauty.

During

Ask students if they can hear a musical pattern while listening to Bach's Violin Concerto. Emphasize that music is basically a pattern constructed from pitches, rhythms, melodies, harmonies, and dynamics. Inform them that an active part of listening to music occurs when the brain recognizes those patterns and anticipates how to follow them.

After

Inquire whether students heard musical patterns. Ask students how they reacted to Bach’s music and whether they can identify a mood or an emotional state that the music made them “feel.” Question students why they think Bach’s music was included on the Voyager golden record.

GO DEEPER!

Excited to learn more about the Voyager missions and the golden record?

artsedge.kennedy-center.org/multimedia/AudioStories/art-space/voyager

Are you thinking about the brain and its amazing connection to music? Checkout:

artsedge.kennedy-center.org/students/features/your-brain-on-music/sound-system

Plus, these additional Web resources:

How Your Brain Listens to Music
news.harvard.edu/gazette/1997/11.13/HowYourBrainLis.html

How Do Our Brains Process Music?
smithsonianmag.com/arts-culture/how-do-our-brains-process-music-32150302/?no-ist

This Is Your Brain on Music: How Our Brains Process Melodies That Pull on Our Heartstrings
medicaldaily.com/your-brain-music-how-our-brains-process-melodies-pull-our-heartstrings-271007

Here’s a Surprising Look at What Music Does to Your Brain
mic.com/articles/89655/here-s-a-surprising-look-at-what-music-does-to-your-brain

How Our Brains Process Music
Summary

Another composition included on the Voyager golden record is Ludwig van Beethoven’s famous Fifth Symphony. The work is a masterful example of the Romantic style of classical music which sought to express thoughts, philosophies, and emotions through music.

Before

Direct students to pages 4–5 of Cuesheet. Read about the life and times of Ludwig van Beethoven and how his music was chosen to be included on the Voyager’s golden record. Read about Beethoven’s use of musical motifs, a short pattern or theme, that is repeated. Preview Beethoven’s loss of hearing and how he continued to compose music despite his deafness.

During

Students listen to the first movement of Beethoven’s Fifth Symphony. Students should be able to identify the celebrated motif with its short-short-short-long pattern. Ask students to listen for the repeated use of this motif.

After

Encourage students to share their thoughts on the music and what emotions they felt while listening to the work. Ask students to draw any comparisons or contrasts with Bach’s more formal and reserved approach to music. Students might venture to explain what Beethoven was trying to “say” with his famous motif. Ask students to identify ways in which Beethoven’s deafness had to affect his composing; how was he able to differentiate the tools a composer typically uses?

GO DEEPER!

What’s so special about Beethoven? Invite your students to find out at:

Meet Mr. Big:
http://artsedge.kennedy-center.org/multimedia/Interactives/beethoven-rocks/meet-mr-big

Beethoven Rocks

If you’re wondering how Beethoven could write music while going deaf, maybe math is the answer. Check out this TED Ed lesson at:

Rock, Paper, Scissors, Beethoven

Listen to the introduction to Beethoven’s Fifth Symphony for the trademark motif. Try playing “Rock, Paper, Scissors” in time with the beat. Count 1-2-3 on the short notes and deliver “rock, paper, or scissors” on the long note.
Summary
Students are introduced to British composer John Ireland and his Epic March. Ireland was commissioned to write music that would inspire courage among his countrymen at a time of war.

Before
Direct students to pages 6–7 of Cuesheet. Discuss Ireland's 1942 commission to write a march to rally the British people around their war efforts. Read about Ireland's use of Beethoven's famous short-short-short-long motif—and its connection to the Morse Code letter V for victory. Encourage students to listen for Ireland's use of that motif in his Epic March.

During
While listening to Ireland's Epic March, students have an opportunity to identify the aspects of the music that speak to heroism and courage. Encourage students to listen for Ireland's choices regarding pitch, rhythm, tempo, and dynamics. Ask students to think about opportunities in their own lives when they have had to exhibit courage.

After
Encourage students to share their thoughts on the subject of courage and their feelings about the music. Ask students why they think Ireland's March opens in a very dramatic way.

GO DEEPER!
Ireland isn't the only composer who was “recruited into musical service” during wartime. Here is an audio account to consider:
artedge.kennedy-center.org/multimedia/series/AudioStories/music-in-the-military

Writing Activity: What's in a Word?
In the physical score itself, Ireland included a dictionary definition of the word “epic.” He wrote: “Concerning some heroic action or series of actions and events of deep and lasting significance in the history of a nation or the race.” Ask students to write about something “epic” in their lives.
Summary
Students are probably familiar with the Theme from *Star Wars* by American composer John Williams. Students learn that film scores can be appreciated in the concert hall as well as in a movie theater. Students hear that musical motifs can also occur in contemporary film scores.

Before
Direct students to pages 6–7 of Cuesheet. Read how the composer created musical themes or motifs for many of the film's characters. Read how the choice of instrumentation works as another tool in the composer's toolbox.

During
Students have an opportunity to identify the aspects of the music that speak to the concepts of heroism and courage. Encourage students to listen for Williams's choices regarding pitch, rhythm, tempo, dynamics, and instrumentation. Students might also reflect on opportunities to exhibit courage in their own lives.

After
Encourage students to share their listening experiences of the Theme from *Star Wars*. Were they able to listen beyond the associations with the movie? Could they hear Williams’s choices regarding pitch, rhythm, tempo, dynamics, and instrumentation? Are they able to reflect on incidents of courage in their own lives?

GO DEEPER!
To learn about the making of *Star Wars*, go to:

The Sounds of *Star Wars*
artsedge.kennedy-center.org/multimedia/AudioStories/music-of-sound/ben-burtt.aspx

Want to build your own spacecraft? Try your hand at free paper models of the Apollo era at:
http://papermodelingman.com
Preparing for the Concert

Before you depart:
- Remind students that no eating or drinking is permitted in the Concert Hall.
- Suggest students bring a light sweater or jacket in case the hall is cold.

When students arrive:
- Encourage students to visit the restrooms in the lobby before the concert begins.
- Remind students to sit still in their seats and not to reach between rows, kick the seat in front of them, or otherwise distract from anyone else’s concert experience.
- The Concert Hall acoustics provide an opportunity to remind students to remain quiet during the performance and to demonstrate how extreme sounds travel from musicians to audience.

During the performance:
- Students will know to applaud the musicians when the conductor lowers his or her arms at the end of the piece and turns to acknowledge the audience.

THE KENNEDY CENTER

David M. Rubenstein
Chairman

Deborah F. Rutter
President

Mario R. Rossero
Senior Vice President, Education

NSO national symphony orchestra
Christoph Eschenbach
Music Director, National Symphony Orchestra

NSO Young People’s Concerts are made possible in part by the generous support of The Clark Charitable Foundation; the Kimsey Endowment; The Morris and Gwendolyn Cafritz Foundation; Park Foundation, Inc.; U.S. Department of Education; and The Volgenau Foundation.

Major support for educational programs at the Kennedy Center is provided by David and Alice Rubenstein through the Rubenstein Arts Access Program.

Kennedy Center education and related artistic programming is made possible through the generosity of the National Committee for the Performing Arts and the President’s Advisory Committee on the Arts.

The contents of this Cuesheet have been developed under a grant from the U.S. Department of Education and do not necessarily represent the policy of the U.S. Department of Education. You should not assume endorsement by the Federal Government.

© 2016 The John F. Kennedy Center for the Performing Arts

ARTSEDGE