



Moon Shot

TEACHER RESOURCE GUIDE

School Matinee Performances



Presented by



Playhouse Square®



Teacher Resource Guide

MOON SHOT



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COMMUNITY ENGAGEMENT & EDUCATION



Playhouse Square®

The lessons and activities in this guide are driven by the Ohio Learning Standards (2017) in English Language Arts. The College and Career Readiness (CCR) Anchor Standards in Reading, Writing, Speaking and Listening, and Language define general, cross-disciplinary literacy expectations that must be met for students to be prepared to enter college and workforce training programs ready to succeed.

21st century skills of creativity, critical thinking and collaboration are embedded in the process of bringing the

page to the stage. Seeing live theater encourages students to read, develop critical and creative thinking skills and to be curious about the world around them.

This Teacher Resource Guide includes background information, questions, and activities that can stand alone or work as building blocks toward the creation of a complete unit of classroom work.



The Ohio Arts Council helps fund this organization with state tax dollars to encourage economic growth, educational excellence and cultural enrichment for all Ohioans.

Playhouse Square is supported in part by the residents of Cuyahoga County through a public grant from Cuyahoga Arts & Culture.





ABOUT PLAYHOUSE SQUARE

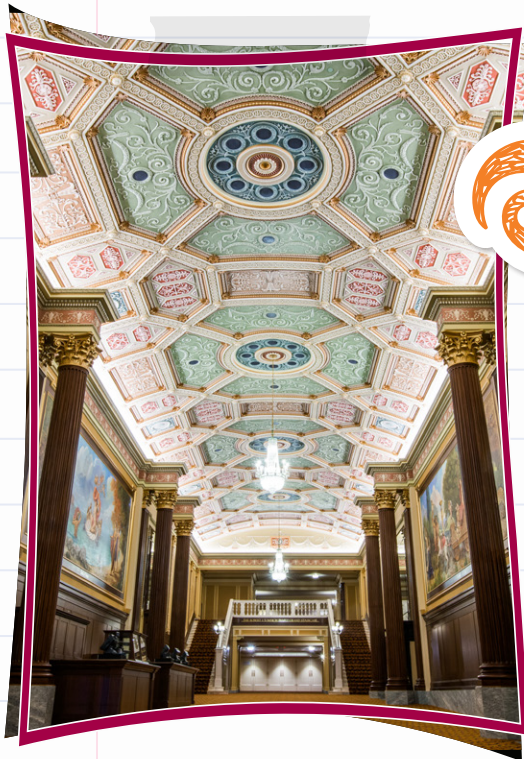


Playhouse Square is an exciting field trip destination! As the country's largest performing arts center outside of New York, the not-for-profit Playhouse Square attracts more than one million guests to 1,000+ shows and events each year. Five of Playhouse Square's 11 performance spaces are historic theaters that first opened in the early 1920s. By the late 1960s, they had been abandoned. A group of volunteers saved the theaters from being turned into parking lots. Now, all five historic theaters are fully restored.

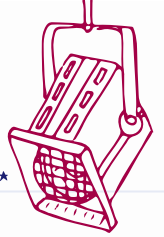
You'll find Broadway, concerts, comedy, dance and family shows on Playhouse Square's stages, along with performances by Playhouse Square's six resident

companies: Cleveland Ballet, Cleveland Play House, Cleveland State University's Department of Theatre and Dance, DANCECleveland, Great Lakes Theater and Tri-C JazzFest.

When you visit, be sure to check out the GE Chandelier, the world's largest outdoor chandelier, and the retro Playhouse Square sign with its 9-foot-tall letters!



Coming to the Theater



We look forward to welcoming you and your students to Playhouse Square! To prepare for a successful field trip, we encourage you to spend some time discussing the differences between coming to the theater and watching a television show or movie or attending a sporting event, especially if you have students who have not yet had the opportunity to attend a live theater performance. Here are a few points to start the discussion:

- You and your students will be greeted and helped to your seats by members of Playhouse Square's staff and "RedCoat" volunteers.
- Theaters are built to magnify sound. Even the slightest whisper can be heard throughout the theater. Remember that not only can those around you hear you, the performers can too.
- As you watch the performance, feel free to respond by laughing or applauding.
- Food, drink and gum are not permitted in the theater for school matinee performances.

- Photography and recording of performances are not permitted.
- Mobile phones and other devices that make noise or light up should be silenced and put away before the performance begins.
- When the houselights dim, the performance is about to begin. Please turn your attention toward the stage.
- After the performance, a member of the Playhouse Square staff will come out on stage to dismiss each school group by bus number. Check around your seat to make sure you have all of your personal belongings before leaving.



ABOUT THE SHOW

Moon Shot – Biggest Story, Smallest Stage. To recreate the story of America’s Apollo 11 lunar landing, seven actors squeeze onto a 21-square foot stage nearly as tight as NASA’s original Mercury capsules. Using only their bodies and their voices, this astounding troupe of actors brings to life one of the most daring times in the history of human exploration: the Space Race. From the Cold War to Sputnik, from Yuri Gagarin to Neil Armstrong, this action-packed show brings the company’s tongue-in-cheek humor to a whole new atmosphere—one where the rules of gravity no longer apply.

a stage language that Lecoq called “Cartoon Mime.” Each cast member plays multiple roles and all the action takes place on a small platform. Since returning and founding the company, Marc has set a goal for himself and his collaborators to continue experimenting with this style, and others, until they have broken ground on new forms of their own.

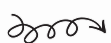
Theatre Unspeakable

Theater Unspeakable started in 2010 as a platform for creating physical, devised theater. To date the company has created four original touring pieces – *Superman 2050*, *Murder on the Midwest Express*, *The American Revolution*, and *Moon Shot* – and is in development for its fifth piece based on the life of Sacagawea. The company works with improvisation, movement, text and voice to devise original works that can tour nationally.

Based in Chicago, Theater Unspeakable has performed in 20 states and Washington DC in venues including: The Kennedy Center, Lincoln Center Education, Palo Alto Children’s Theatre, Adventure Stage Chicago and Chicago Children’s Theatre.

The Platform

The physical theater style practiced by the company, known as “The Platform,” draws upon the heavy influence of founder Marc Frost’s time at the London International School of Performing Arts. It was there, during a two-year theater program, that Frost became familiar with the work of Jacques Lecoq, a French physical theater teacher. “The Platform” was an exercise created by Lecoq to tell a big story in a small space using



HELPFUL INFORMATION PRIOR TO YOUR FIELD TRIP



Space Race Key Terms

V-2 (vergeltungswaffe 2 “Retribution Weapon 2”)

The V-2, technical name Aggregat 4, was the world's first long-range guided ballistic missile. Built by the Germans during World War II, it could be launched from Germany and used to target cities and towns in neighboring enemy countries, causing death and destruction. It was used to deadly effect in Great Britain, but luckily the war ended before the German scientists were able to mass-produce the weapon. The V-2 rocket also became the first man-made object to travel into space by crossing the Kármán line (the boundary between Earth's atmosphere and outer space) with the vertical launch of MW 18014 on June 20, 1944. As Germany collapsed, teams from the Allied forces – the United States, United Kingdom and Soviet Union – all raced to capture key German manufacturing sites and technology regarding the V-2 and its ability to reach space.

Orbit

The gravitationally curved trajectory of an object around another (i.e. the trajectory of a planet around a star or a natural satellite around a planet).

Satellite

In the context of spaceflight, a satellite is an artificial object intentionally placed into orbit around the Earth or moon in order to collect information.

Cold War

The state of political hostility that existed between the Soviet Union and United States from 1945 to 1990.

Capsule

In the context of spaceflight, a small spacecraft (or part of a larger one) that contains the sensitive instrument and crew.

The Eagle Has Landed

A code phrase spoken by mission commander Neil Armstrong after successfully landing the lunar module (codename: Eagle) on the surface of the moon for the very first time.

Astronaut/Cosmonaut

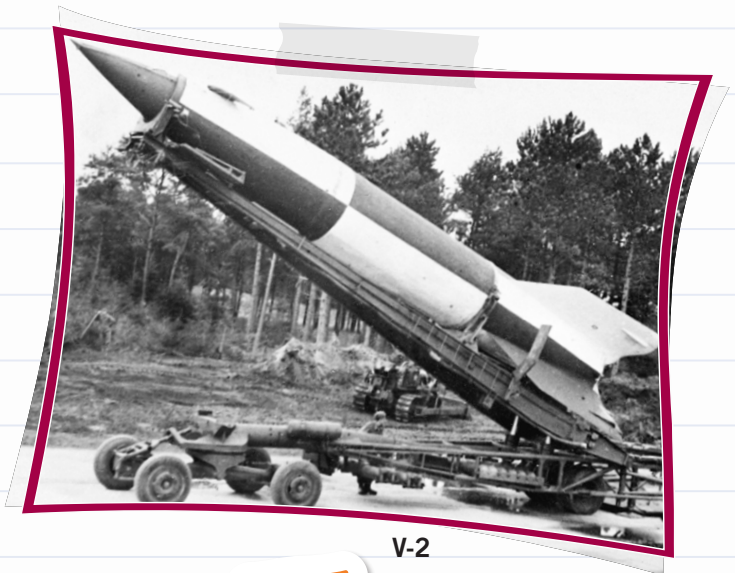
A person who is trained to travel in a spacecraft. American space travelers are known as astronauts, Soviet space travelers are known as cosmonauts

NASA

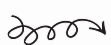
National Aeronautics and Space Administration
Established in 1958, NASA is an independent agency of the United States Federal Government responsible for the civilian space program, as well as aeronautics and aerospace research.

Lovelace's Women In Space Program

A program spearheaded by the American Air Force in the early 1960's, aimed at testing women's physical ability to withstand the rigors of space flight. Details of the program were presented to NASA, but they ultimately decided against allowing American women in manned space flight at that time.



V-2



Space Race Timeline

1945

Following the German defeat in WWII, V-2 Rocket designer Wernher Von Braun was captured and brought to America, where he was instrumental in designing the rockets which would eventually take astronauts to the moon.

1945

While the Americans had von Braun, the Soviet Union managed to smuggle the existing Nazi-era V-2 rockets out of Germany for use in their very own space program.

October 14, 1947

American test pilot Chuck Yeager broke the sound barrier for the first time in the X-1, also known as Glamorous Glennis.

October 4, 1957

The first artificial Earth satellite, Sputnik 1, was launched into an elliptical low Earth orbit from Tyuratam. The Space Race between the Soviet Union and the United States began.

November 3, 1957

The Soviet Union launched Sputnik 2 with the first living passenger, the dog Laika, aboard.

October 7, 1958

NASA Administrator T. Keith Glennan publicly announced NASA's manned spaceflight program along with the formation of the Space Task Group, a panel of scientist and engineers from space-policy organizations absorbed by NASA. The announcement came just six days after NASA was established.

Jan. 2, 1959

The U.S.S.R. launched Luna 1, which missed the moon but became the first artificial object to leave Earth's orbit.

August 7, 1959

NASA launched the Explorer 6 which provided us the first photographs of Earth from space.

August 19, 1960

Two dogs (along with 40 mice and several plant species) were successfully launched into orbit by the Soviets. They returned to Earth alive, and Strelka the dog later gave birth to a litter of puppies, one of which was given as a gift to First Lady Jacqueline Kennedy. White House advisors initially opposed accepting the puppy, as they believed it was likely that the Soviets had planted microphones inside the dog in order to listen in on national defense meetings.

April 12, 1961

Cosmonaut Yuri Gagarin became the first human in space after successfully completing an orbital spaceflight. After the 108-minute flight, Gagarin ejected from the capsule and parachuted to safety from 7 kilometers above the Earth's surface. He landed on a Soviet farm.

May 5, 1961

Aboard the Mercury Freedom 7, astronaut Alan Shepard became the first human to complete a suborbital flight and return to Earth safely without ejecting from the space capsule three weeks after Gagarin's infamous flight.

February 20, 1962

John Glenn made the first U.S. manned orbital flight aboard Mercury 6.

September 12, 1962

Speaking at Rice University in Houston, Texas, President John F. Kennedy publicly announced the United States' intent to land a human being on Earth's moon by the end of the 1960's. This was a serious gamble, as the Soviet Union had shown itself to be a formidable rival in the space race thus far.

June 16, 1963

Once again asserting dominance over the Americans in the space race, the Soviet Union launched capsule Vostok 6 into space with a one-woman flight crew, civilian Cosmonaut Valentina Tereshkova. The American Air Force's "Women in Space Program" had been thwarted by NASA just one year prior. The first American woman in space would not come until 1983.



John Glenn



November 22, 1963

While riding in a presidential motorcade in Dallas, Texas, President Kennedy was shot by Lee Harvey Oswald, and died later that day at Parkland Memorial Hospital. In addition to being a national traumatic event, the assassination was particularly disturbing for NASA, as the President had been the most famous and vocal proponent of the space program.

March 18, 1965

Cosmonaut Alexey Leonov became the first human to conduct extravehicular activity (done outside a spacecraft, beyond the earth's atmosphere). A Soviet spacecraft featuring an inflatable airlock was the site of the first spacewalk. Leonov wore a specialized spacesuit in order to complete the 12-minute spacewalk.

January 14, 1966

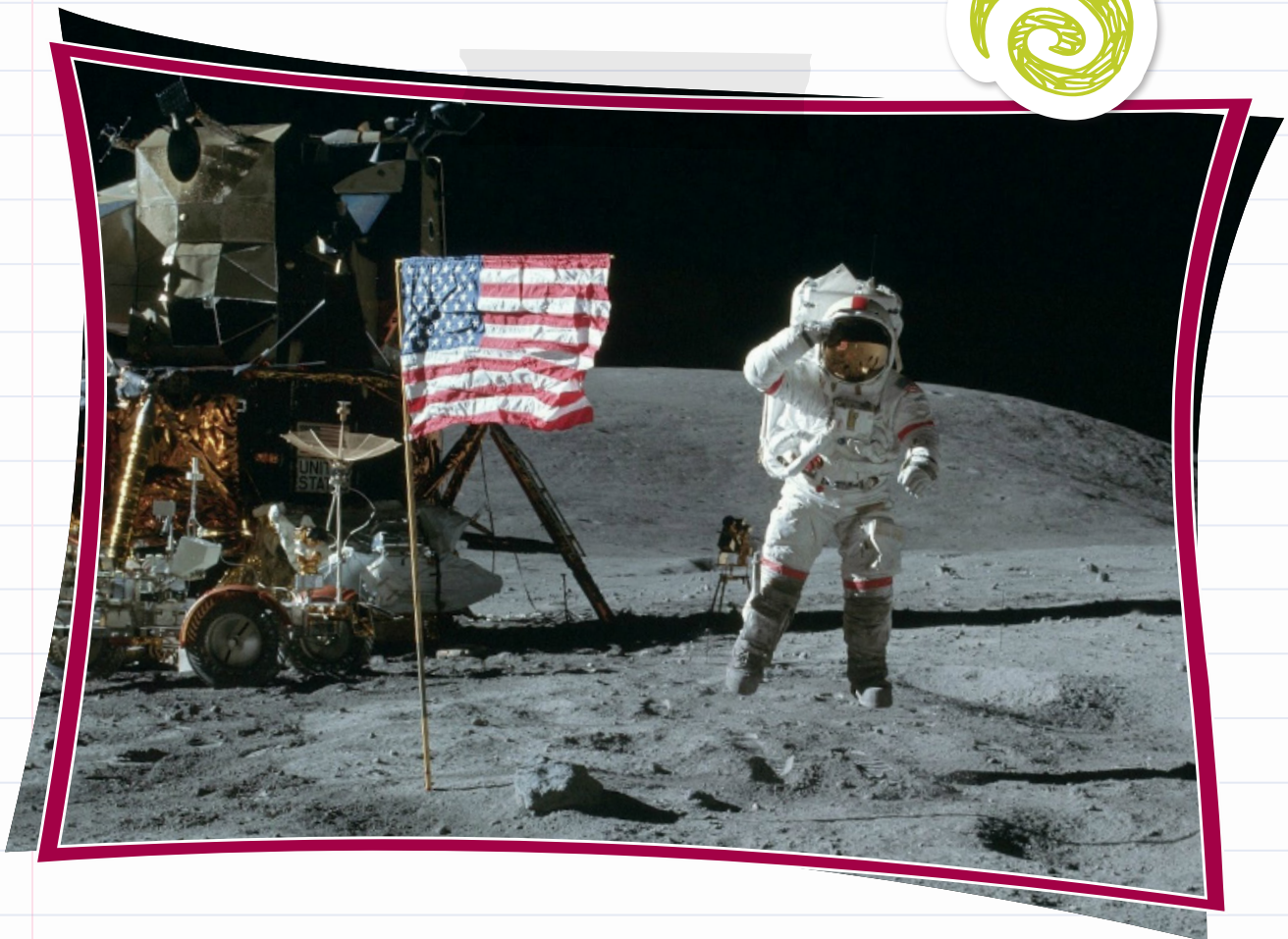
After living a life in secret, chief Soviet rocket designer Sergei Korolev's dies. His death was announced as a tragedy for all Soviets – a hero's funeral was held for Korolev in Moscow.

January 27, 1967

NASA's first manned mission to the moon never made it off the ground. Originally scheduled to launch February 21, 1967, a cabin fire during a launch rehearsal took the lives of all three crew members – Gus Grissom, Ed White, and Roger Chaffee. Manned Apollo flights were suspended for 20 months following the tragedy.

July 20, 1969

At long last, NASA fulfilled the promise of the late John F. Kennedy. Launching on July 16, 1969, Apollo 11 was the spaceflight that landed the first two people on the Moon – Commander Neil Armstrong and lunar module pilot Buzz Aldrin. The lunar module holding the two astronauts was known as Eagle.



PRE-SHOW ACTIVITIES

How Does a Scientist Look?

The Ohio Learning Standards listed below are addressed in the following Pre-Show Activity:
CCR.SL.3.1, CCR.SL.4.1, CCR.SL.5.1, CCR.SL.6.1, CCR.SL.7.1, CCR.SL.8.1

Additionally, while the Ohio Learning Standards for the Nature of Science are in review, the below Next Generation Science Standards from Appendix H can be linked to the following Pre-Show Activity:
NGSS: Science is a Human Endeavor – 3-5
NGSS: Science is a Human Endeavor – 6-8



There is an increasing number of science careers available in the United States; however, the field still lacks diversity. One way to help encourage more people to consider a STEM related field is by breaking down misconceptions of what types of people are scientists, how science is practiced, and what types of science exist. This activity seeks to help students to realize that they have more in common with scientists than they realize.

Divide the class into two to three groups. Instruct each group to work together to draw two pictures of a scientist. In the first picture, show where the scientist works, what tools the scientist uses, clothes that the scientist wears, and anything else that shows that this person is a scientist. In the second picture, highlight what the scientist looks like outside of work. You can include activities that the scientist might do, what they might wear for everyday activities, where they might spend their time outside of work, and so on. Have the groups share their drawings



with the class and identify similarities and differences between the pictures.

Next, have your students visit the Tumblr site (or project the site if they do not have access to individual computers) “This is what a scientist looks like!”

<http://lookslikescience.tumblr.com>

In pairs, have the students look at ten different scientist profiles. What activities/hobbies beyond science do the scientists participate in?

Critical Thinking Question:

In what ways are your pictures similar or different from the real scientists?

Do you have anything in common with the scientists?

Are there any surprising revelations that you had as you looked at the different profiles?



Cold War Street Art Mural

The Ohio Learning Standards listed below are addressed in the following Pre-Show Activity:
PS.U.1

Modern World History
The Cold War – Content Statements #17 & #22

American History
The Cold War – Content Statement #22

The Space Race was a big part of the Cold War. Students may not be familiar with the Cold War prior to viewing the play. To provide context for the students, show them

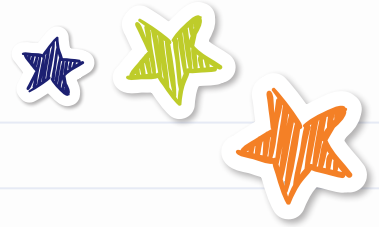
images of the Berlin Wall and explain why it was built, why artists painted murals on it, and when it came down. Additionally, explain how the Cold War and the Space Race were connected.

Assign a Cold War/Space Race event to groups of two to three students. Each group will illustrate a picture (or create a collage if they struggle with drawing) about their assigned event. Encourage your students to depict why the Space Race was an important part of the Cold War and have them capture the tensions and the feelings that people had during that time.

Bring the groups all back together and use their pictures to create a mural of events that took place during the Cold War. If you can, create the mural on the wall outside your classroom so that other students can see the work.



Moon Features



The Ohio Learning Standard below is addressed in the following Pre-Show Activity:
CCR.5.ESS.1

Recreate the features of the moon's surface with a few simple tools.

Items you'll need:

- Flour
- Cocoa
- Aluminum pie pan
- Marbles
- Meter sticks

Directions:

- 1) Fill your pie pan with flour to create a level surface.
- 2) Cover the flour with a light dusting of cocoa. Be sure the flour is completely covered.

- 3) Using the meter stick, have students drop a marble from various heights.
- 4) After each drop, have students draw a diagram of the crater that was formed. The diagrams should include various parts of the crater. Note: craters that were formed when the marble was dropped from a close distance may not have all features.

After a couple drops, students should be able to predict what the features will look like when dropped from varying heights, with varying force or from varying angles.

During the experiment, create a data chart like the one below to track your results:

Height of Drop	Depth of Crater	Length of Rays	Amount of Ejecta	Width of Crater
10 cm				
20 cm				
30 cm				
Etc.				
Etc.				

At Home Extension
The next time there's a full moon, try to identify craters and their features when looking at the moon.



Space Race Graphic Novel



The Ohio Learning Standards listed below are addressed in the following Post-Show Activity:

CCR.W.3.3, CCR.W.4.3, CCR.W.5.3, CCR.W.6.3, CCR.W.7.3, CCR.W.8.3

Modern World History

The Cold War – Content Statements #17 & #22

American History

The Cold War – Content Statement #22

Additionally, while the Ohio Learning Standards for the Nature of Science are in review, the below Next Generation Science Standards from Appendix H can be linked to the following Post-Show Activity:

NGSS: Science is a Human Endeavor – 3-5

NGSS: Science is a Human Endeavor – 6-8

Neil Armstrong is the main focus in *Moon Shot*; however, many people played vital roles in the Space Race. Assign pairs of students a person from the Space Race and tell them to learn about the major life events of that person as well as the person's contributions to the Space Race. After they have gathered information, have the pair illustrate and caption a comic strip of that person's life and their perspective of the Space Race. Have each pair of students partner with another pair of students to edit their cartoons. Once students have made their final edits, combine the comics to make a class graphic novel of the Space Race.

Here is a list of suggested people to research:

Astronauts

Alan Shepherd
Alex Leonov
Buzz Aldrin
Christa McAuliffe
Ed White
Guion “Guy” Bluford
John Glenn
Michael Collins
Neil Armstrong
Sally Ride
Valentina Tereshkova
Yuri Gagarin

Scientists, Coders and Engineers

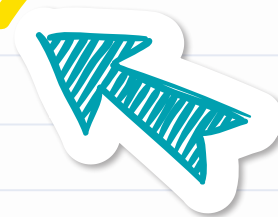
Dorothy Vaughn
Christine Darden
Katherine Johnson
Mary Jackson
Sergei Korolev
Wernher Von Braun

Other People

President John F. Kennedy
President Lyndon B. Johnson
President Richard Nixon
Walter Cronkite

Critical Thinking Questions

1. In what ways do the people of the Space Age represent your idea of a scientist?
2. In what ways do the people of the Space Age differ from your idea of a scientist?
3. How does science effects non-scientists and their careers?



To Infinity and Beyond

The Ohio Learning Standards listed below are addressed in the following Post-Show Activity:

CCR.W.3.3, CCR.W.4.3, CCR.W.5.3, CCR.W.6.3, CCR.W.7.3, CCR.W.8.3

Additionally, while the Ohio Learning Standards for the Nature of Science are in review, the below Next Generation Science Standards from Appendix H can be linked to the following Post-Show Activity:

NGSS: Science is a Human Endeavor – 3-5

NGSS: Science is a Human Endeavor – 6-8

The Apollo Missions to the Moon were not the only space missions. In fact, many missions continue to this day. Assign groups of four a space mission and have them write a play. The play should include a plot (getting to the destination), and it should include some background stories about the people involved.

Alternatively, have groups write a play about a major solar system event or another significant event in mankind's exploration of space.

Here is a list of suggested space events:

Missions

Apollo 11

Apollo 13

Apollo- Soyuz

Curiosity

Friendship 7

Mars and the Curiosity Rovers

The Challenger

The Columbia

The Voyager

Solar System Events

The discovery of Pluto

Pluto becomes a dwarf planet

Significant events

First in space

First American in space

First woman in space

First American woman in space

First Orbit

First Spacewalk

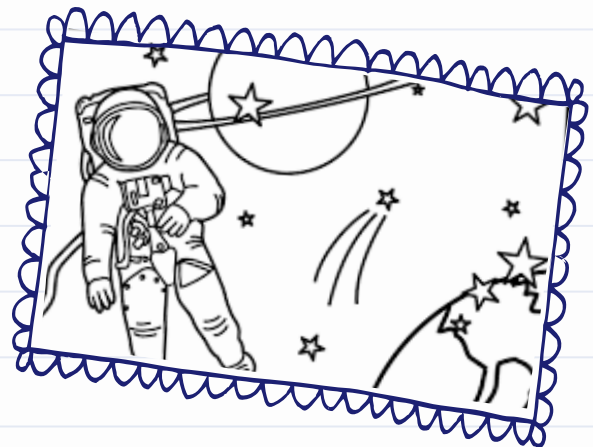
First African American in space

JFK declares US will land on the moon by the end of the decade

Launch of the Hubble Space Telescope

Near Earth Asteroid Rendezvous (NEAR)

Launch of Sputnik



WHAT'S NEXT?

Edible Rover

Adapted from Teach Engineering from the University of Colorado Boulder

While the Ohio Learning Standards for the Nature of Science are in review, the below Next Generation Science Standards from Appendix H can be linked to the following Post-Show Activity:

NGSS: Science is a Human Endeavor – 3-5

NGSS: Science is a Human Endeavor – 6-8

Just like President Kennedy predicted we would send men to the moon, former President Obama predicted that humans will orbit Mars and return safely to earth by the mid 2030's. This means by the time your students graduate from college, they could potentially be on our countries first mission to Mars!

How do we get there?

Explain to your students that the Martian Rovers are our first tools to getting humans to Mars and that they are going to build one of their own!

- Gather fun snacks, crackers, cookies and candy for your students to use to build their edible rover.
- Familiarize your students with the parts of a working rover. Have your students study images of rovers with details of the main pieces that need to be included in a working rover.
- Divide your students into groups of three to four.
- Have them use the attached worksheet to aid them in planning and designing their own edible rover. In order for them to receive the parts to build the rover, they must have the teacher approve each box with an initial.
- Once their rover is completed, play, eat, and enjoy!

For additional activities regarding Martian exploration, visit these links:

Mission to Mars (engineering)

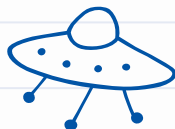
https://www.teachengineering.org/curricularunits/view/cub_mars_curricularunit

Send a Postcard to Mars

<https://marsmobile.jpl.nasa.gov/msl/participate/postcard/>

NASA's Journey to Mars

<https://mars.nasa.gov/participate/marsforeducators/soi/>



Critical Thinking Questions

1. What makes a person a dreamer? Is it a good thing or a bad thing?
2. How do you determine what's important in life?
 - a. Should you do what is best for everyone?
 - b. For yourself?
 - c. For your family members?
 - d. What should you do if these conflict?
3. Science gives us truly amazing things like cellphones and space ships, but also frightening things like bombs. How far should science be allowed to go?





<p>1) Brainstorm ideas for your rover. Consider what instruments your rover might need on Mars.</p>	<p>2) Draw a sketch of your rover with explanations of all its parts.</p>
<p>3) List the materials you'll need for your rover and how much they might cost (budget).</p>	<p>4) If your design was not approved by your teacher, try again. It's called a re-design.</p>



RESOURCES

Reading

Early Readers

Hidden Figures: The True Story of Four Black Women and the Space Race (Shetterly and Freeman, 2018, HarperCollins). (Grades PreK-3)

Moon Shot: The Flight of Apollo 11 (Floca, 2009, Antheneum Richard Jackson Books) (Grades PreK-5)

One Giant Leap (Burleigh & Wimmer, 2014, Puffin Books) (Grades 1-3)

Intermediate Readers

Hidden Figures Young Readers Edition (Shetterly, 2016, HarperCollins Reprint Edition) (Grades 3-7)

Simple History: The Space Race (Turner, 2014, Create Space Independent Publishing Platform) (Grades 4-6)

Moon Shot: The Flight of Apollo 11 (Floca, 2009, Antheneum Richard Jackson Books) (Grades PreK-5)

To the Moon and Back, Kindle edition (French & Sullivan, 2010, HarperCollins)

Simple History: The Cold War (Turner, 2016, Create Space Independent Publishing Platform) (Grades 4-6)

Advanced Readers

Lives of the Planets (Corfield, 2007, Basic Books)

Hidden Figures: The American Dream and the Untold Story of the Black Women Mathematicians Who Helped Win the Space Race (Shetterly, 2016, William Morrow Paperbacks)

Web

The Space Race, Simple History - <https://www.youtube.com/watch?v=xvaEvCNZymo&vl=en-US>

Timeline: 50 Years of Spaceflight <https://www.space.com/4422-timeline-50-years-spaceflight.html>

Story Time from Space (Astronauts aboard the International Space Station read children's books) <http://storytimefromspace.com/>

Mission to Mars (engineering) https://www.teachengineering.org/curricularunits/view/cub_mars_curricularunit

Send a Postcard to Mars <https://marsmobile.jpl.nasa.gov/msl/participate/postcard/>

NASA's Journey to Mars <https://mars.nasa.gov/participate/marsforeducators/soi/>



CURRICULUM STANDARDS INDEX

Standard	Description	Grade	Activity	Page
CCR.SL.3.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.	3	How Does a Scientist Look?	9
CCR.W.3.3	Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.	3	Space Race Graphic Novel To Infinity and Beyond	12 13
CCR.SL.4.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.	4	How Does a Scientist Look?	9
CCR.W.4.3	Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.	4	Space Race Graphic Novel To Infinity and Beyond	12 13
CCR.SL.5.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.	5	How Does a Scientist Look?	9
CCR.W.5.3	Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.	5	Space Race Graphic Novel To Infinity and Beyond	12 13
CCR.5.ESS.1	The solar system includes the sun and all celestial bodies that orbit the sun. Each planet in the solar system has unique characteristics.	5	Moon Features	11
CCR.SL.6.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics and texts, building on others' ideas and expressing their own clearly.	6	How Does a Scientist Look?	9
CCR.W.6.3	Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and well-structured event sequences.	6	Space Race Graphic Novel To Infinity and Beyond	12 13



CURRICULUM STANDARDS INDEX CONTINUED

Standard	Description	Grade	Activity	Page
CCR.SL.7.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics and texts, building on others' ideas and expressing their own clearly.	7	How Does a Scientist Look?	9
CCR.W.7.3	Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and well-structured event sequences.	7	Space Race Graphic Novel To Infinity and Beyond	12 13
CCR.SL.8.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics and texts, building on others' ideas and expressing their own clearly.	8	How Does a Scientist Look?	9
CCR.W.8.3	Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and well-structured event sequences.	8	Space Race Graphic Novel To Infinity and Beyond	12 13
PS.U.1	History of the Universe	9-12	Cold War Street Art Mural	10
Modern World History Topic: The Cold War	#17 The United States and the Soviet Union became superpowers and competed for global influence	9-12	Cold War Street Art Mural Space Race Graphic Novel	10 12
Modern World History Topic: The Cold War	#22 The break-up of the Soviet Union ended the Cold War and created challenges for its former allies, the former Soviet republics, Europe, the United States and the non-aligned world.	9-12	Cold War Street Art Mural Space Race Graphic Novel	10 12
American History Topic: The Cold War	#22 Use of atomic weapons changed the nature of war, altered the balance of power and began the nuclear age.	9-12	Cold War Street Art Mural Space Race Graphic Novel	10 12



CURRICULUM STANDARDS INDEX CONTINUED

While the Ohio Learning Standards for the Nature of Science are in review, the following Next Generation Science Standards from Appendix H can be linked throughout this resource guide.

Standard	Description	Grade	Activity	Page
Science is a Human Endeavor	Men and women from all cultures and backgrounds choose careers as scientists and engineers.	3-5	How Does a Scientist Look?	9
			Space Race Graphic Novel	12
			To Infinity and Beyond	13
Science is a Human Endeavor	Creativity and imagination are important to science.	3-5	What's Next?	14
Science is a Human Endeavor	Men and women from different social, cultural, and ethnic backgrounds work as scientists and engineers	6-8	How Does a Scientist Look?	9
			Space Race Graphic Novel	12
			To Infinity and Beyond	13
Science is a Human Endeavor	Scientists and engineers are guided by habits of mind such as intellectual honesty, tolerance of ambiguity, skepticism and openness to new ideas.	6-8	What's Next?	14
Science is a Human Endeavor	Advances in technology influence the progress of science and science has influenced advances in technology.	6-8	What's Next?	14

