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***Please refer to the Pennsylvania Standards Aligned System website: (***[***http://www.pdesas.org/module/sas/curriculumframework/SocialStudiesCF.aspx***](http://www.pdesas.org/module/sas/curriculumframework/SocialStudiesCF.aspx)***)***

***for information on the Pennsylvania Curriculum Framework for Social Studies. You will find much of the information about PA Academic Standards, essential questions, vocabulary, assessments, etc. by navigating through the various components of the Curriculum Framework.***

**LESSON / UNIT TITLE: (Type here.):**

**Teacher Name(s):** Bill Wallitsch and Bob Moore

**School District:** Northeast Bradford School District

**Building:** Northeast Bradford Junior-Senior High School

**Grade Level:** 11-12

**Subject:** United States History

**Time Required:** 4-5 class periods

**Lesson/Unit Summary *(2-3 sentence synopsis)*:**

This unit will provide students with an overview of the “Space Race” between the United States and the Soviet Union culminating in the Apollo 11 Moon landing.  Students will explore the impact the Space Race had on the Cold War and evaluating the significance the United States’ space program.

**Essential Questions for Lesson/Unit**

1. Why Did the United States decide to go to the Moon?
2. How Did the United States get to the Moon?
3. Who won the Space Race?

**Pennsylvania Academic Standards/ Common Core Standards Addressed in Lesson/Unit**

 ***(Include standards numbers and standards statements.)***

***Pennsylvania Academic Standards***

**8.1.12. A.** Evaluate chronological thinking.

**8.1.12. B**. Synthesize and evaluate historical sources.

**8.1.12. C.** Evaluate historical interpretation of events.

**8.1.12. D.** Synthesize historical research.

**8.3.12. A.** Identify and evaluate the political and cultural contributions of individuals and groups to United States history from 1890 to Present.

**8.3.12. B.** Identify and evaluate primary documents, material artifacts and historic sites important in United States history from 1890 to Present.

**8.3.12. C.** Evaluate how continuity and change has influenced United States history from 1890 to Present.

***Pennsylvania Common Core Standards: Reading for History and Social Studies*CC.8.5.11-12.A.** Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.

**CC.8.5.11-12.B.** Determine the central ideas or information of a primary or secondary source; provide an accurate
summary that makes clear the relationships among the key details and ideas.

**CC.8.5.11-12.D.** Determine the meaning of words and phrases as they are used in a text, including analyzing how an author uses and refines the meaning of a key term over the course of a text (e.g., how Madison defines faction in Federalist No. 10).

**CC.8.5.11-12.F.** Evaluate authors’ differing points of view on the same historical event or issue by assessing the authors’ claims, reasoning, and evidence
**Lesson/Unit Objectives**
**CC.8.5.11-12.G.** Integrate and evaluate multiple sources of information presented in diverse formats and media
(e.g., visually, quantitatively, as well as in words) in order to address a question or solve a problem.

**CC.8.5.11-12.J.** By the end of grade 12 read and comprehend history/social studies texts in independently and proficiently

***Pennsylvania Common Core Standards: Writing for History and Social Studies*
CC.8.6.11-12.B.\*** Write informative/explanatory texts, including thenarration of historical events, scientific procedures/experiments, or technical processes.

**CC.8.6.11-12.C.** Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
**Vocabulary/Key Terms for Lesson/Unit**
**CC.8.6.11-12.D.** Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new
approach, focusing on addressing what is most significant for a specific purpose and audience.

**CC.8.6.11-12.E.** Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.

**CC.8.6.11-12.H**. Draw evidence from informational texts to support analysis, reflection, and research.

**Lesson/Unit Objectives**

At the end of this unit, students will be able to:

1. Describe how Cold war tensions between the United States and the Soviet Union following World war II precipitated the “Space Race”.
2. Describe the political, economic and social responses of the United States to the launch of the Sputnik satellite by the Soviet Union.
3. Identify the key events in the “Space Race” and evaluate the impact of each on the race to the moon.
4. Analyze primary sources to understand President Kennedy’s “man on the moon” initiative.
5. Evaluate the successes and failures of the United States’ space program from the late 1950’s to the present.

**Vocabulary/Key Terms for Lesson/Unit**

|  |  |
| --- | --- |
| Apollo Program | U.S. third manned spaceflight program that landed on the Moon |
| Cold War | 40-year struggle for dominance between the United States and Soviet Union in the latter half the 20th Century |
| Gemini Program | U.S. second manned spaceflight program |
| Intercontinental Ballistic Missile | A missile that is capable of traveling from one continent to another |
| Mercury Program | U.S. first manned spaceflight program that orbited the Earth |
| NASA | The federal agency responsible for the space program |
| Orbit | The path a spacecraft takes around an object in space |
| Saturn V Rocket | Three staged rocket that launched the Apollo Spacecraft |
| Space Race | Cold War race between the United States and Soviet Union to develop and control space travel and to develop missile technology |
| Sputnik | The first satellite that the Soviets launched into space. |

**Historical Background for Teachers / Research Narrative**

(***Insert a 2-3 page abstract that details your research on the lesson/unit topic. This is where you get to share your scholarship with your peers. You should provide enough information that a teacher could potentially teach the lesson/unit and answer general questions based on studying your narrative.***

**The Cold War and the Space Race**

On May 21, 1961 President John F. Kennedy addressed a joint session of Congress, asking the members of the House of Representatives and the Senate for expenditures exceeding nine billion dollars for the expressed purpose of landing a man on the moon before the end of the decade. Approximately fifteen months later, on September 12, 1962, President Kennedy spoke to students at Rice University evaluating the United States progress in space technology and identifying Houston, Texas as the new headquarters for NASA, the federal agency responsible for the space program. Although President Kennedy was assassinated before achieving his goal, President Richard Nixon expressed the former President’s joy and pride when he congratulated Astronaut Neil Armstrong during a telephone call from the Oval Office in the White House just hours after Armstrong had taken “one giant leap for mankind.”

The “Space Race” was an extension of the Cold War.  With the collapse of fascism in Europe and the Orient following World War II, the United States and Soviet Union sought to expand their influence world-wide.  This contest went celestial after the Soviet Union launched Sputnik I on October 4, 1957.  The United States space program prior to Sputnik was undefined.  When President Eisenhower issued a statement congratulating the Soviet Union on its achievement, there was no consensus in the United States as to what aerospace policy should be.  President Eisenhower’s inability to create a uniform space policy and his failure to convey to Americans his belief that the United States was the leader in military strength and scientific research created confusion and alarm among citizens of the United States.

Notwithstanding President Eisenhower’s composure following the Soviet’s successful launch of Sputik, the majority of Americans responded to the Soviet’s early dominance in the Space Race with panic and hyperbole.  The *New York Times* wrote that the Sputnik launch was “one of the world’s greatest propaganda - as well as scientific achievements” and alleged that the Soviets had won a significant battle in the “war of men’s minds.” In his memoirs, President Johnson would concede that the Soviet’s success made “the sky seemed almost alien.” The tension felt by Americans while admitting complacency and failure in the midst of the Cold War was spoken by Montana Senator Mike Mansfield when he suggested that “at stake is nothing less than our survival.”

The United States’ response to Sputnik was extraordinary.  By June of 1963, while the Soviet Union was basking in the achievements of cosmonauts Yuri Gagarin and Valentina Tereshkova, the United States had accelerated its spending on defense.  The result of this massive spending was the creation of a new defense infrastructure that President Eisenhower would refer to as the United States Military Complex.  Also, the North Atlantic Treaty Organization (NATO), influenced heavily by the United States, began to stockpile nuclear weapons within member country’s borders.  This overaction was justified in the media as a measured response to an aggressive Communist enemy.

The successful launch of Sputnik had a dramatic effect on domestic policy as well. Framed as a national security concern, the United States exercised greater priority in teaching math and science.  In a 2009 article published by *Forbes*, Kenneth Brill offers his own experiences as a high school freshman.  Brill notes increase emphasis in both math and science classes and recalls national attention to promoting science and engineering as cool and patriotic careers. Adding money to their commitment, in 1958 the federal government passed the National Defense Education Act which allocated millions of dollars in an attempt to recruit students to become scientists.

The scientific community in the United States had been active in aerospace technology for years before the Soviets launched Sputnik.  Shortly after Sputnik, the American recruited former Nazi scientist Wernher von Braun who pleaded, “for God’s sake turn us loose and let us do something.”  The United States government was quick to comply.  By 1961 when President Kennedy made public our commitment to land a man on the moon, the United States government had already increased appropriations to the National Science Foundation and was actively seeking programs between the federal government and educational leader at prestigious Universities including Harvard, Stanford and MIT.  Also, major philanthropic foundations including Rockefeller and Carnegie, provided private financial support to supplement massive government spending.  Ultimately, however, it was NASA’s mandate to make President Kennedy’s prophesy become real.  This was accomplished on July 21, 1969 when Neil Armstrong became the first human to walk on the Moon.

The short term result of the Space Race was confirmation that United States’s aerospace technology was superior to the Soviet Union.  Long term, however, NASA has neither failed to identify specific goals for the space program nor has it received the appropriations necessary to implement these goals successfully.

**Sources:**

<http://www2.cicerohistory.com/Cicero/c/14/Lessons/HighSchool/Space_Age.pdf>

<http://www.foreignaffairs.com/articles/48812/stephen-e-ambrose/the-sputnik-challenge-eisenhowers-response-to-the-soviet-satelli>

<http://www.forbes.com/2009/10/08/science-education-china-technology-cio-network-sputnik.html>

<http://www.npr.org/templates/story/story.php?storyId=14829195>

<http://www2.ed.gov/about/overview/fed/role.html>

<http://www.cbsnews.com/video/watch/?id=3303172n>

<http://csis.org/publication/role-nasa-40-years-after-lunar-landing>

<http://whitehousetapes.net/clips/1962_1121_apollo/>

<http://whitehousetapes.net/clip/john-kennedy-james-webb-robert-seamans-hugh-dryden-jerome-wiesner-fly-me-moon>

<http://www.history.com/videos/jfk-sets-goal-for-man-on-moon#jfk-sets-goal-for-man-on-moon>

<http://www.jfklibrary.org/Asset-Viewer/Hr0kebN1G0yeVrdAvZpEfQ.aspx>

<http://www.centennialofflight.gov/essay/SPACEFLIGHT/Sputnik/SP16.htm>

**Instructional Prodedures and Activities**

1. **Activating Strategy**
Have students watch the CBS news report broadcast from October, 1957 <http://www.cbsnews.com/video/watch/?id=3303172n> and create a T-Chart comparing what the United States “Knew” about the satellite (examples include: Sputnik’s Orbit, Rocket Specifications) with what we “Think” will result from the successful Soviet launch (examples include: Transmitted Codes, Possible Russian Aggression).

|  |  |
| --- | --- |
| WHAT DID THE UNITED STATES KNOW ABOUT SPUTINIK I AND THE SOVIET LAUNCH? | WHAT DO WE THINK WILL RESULT FROM THE SUCCESSFUL SOVIET LAUNCH? |
| 1. ORBIT
2. ROCKET SPECIFICATIONS
3. US IS BEHIND
 | 1. CODED MESSAGES
2. RUSSIAN AGGRESSION
3. FURTHER COMMUNIST EXPANSION
 |

**2. Graphic Organizer:** Students will use the results of the T-Chart to write the first paragraph of a Newspaper Column Entitled WHAT WILL THE RUSSIANS DO NEXT? (*Gifted students will use Microsoft Publisher to create a one page newsletter of the Soviet Launch and American reaction.)*
**3. Vocabulary and Practice**
a. Students will complete a *3-2-1 Activity* from the powerpoint presentation in Unit 14: Cold War Era - The Space Program.  The purpose of this activity is to introduce students to basic vocabulary of the lesson, to compare United States and Soviet technology and to highlight early success and failures of United States Space Program.

b. The activity requires students to reply to three questions:  What are three ideas that you learned?; What are two ideas that you found interesting?; What is one question that you still have? *For students with an IEP - Teachers should use guided practice techniques while presenting the Power Point presentation.*

c. Summarize this activity by allowing students to ask their question to the class for additional (bonus) points to the assignment.

|  |
| --- |
| ***3-2-1******THREE THINGS THAT I LEARNED***1.

 1.

  |
| ***TWO THINGS THAT I FOUND INTERESTING***1.

  |
| ***ONE QUESTION THAT I STILL HAVE*** |

4. **Assessment Prompt 1:**

Students will use the following primary sources: ***Cicero Unit 14: Cold War Primary Sources*** : “To the Moon”, John F. Kennedy (1962), supplemented with a ***YouTube*** video to analyze President Kennedy’s speech to students and faculty at Rice University.

Primary Sources:

<http://www2.cicerohistory.com/Cicero/c/14/PrimarySources/SpeechesandCorrespondence/To_The_Moon__John_Kennedy__1962.pdf>

<http://www.youtube.com/watch?v=ouRbkBAOGEw>

Students will answer the following questions:

1. President Kennedy condensed “the 50,000 years of man’s recorded history in a time span of half a century.”  Select four events that the President used to explore human evolution and identify the relative time period of these achievements.  Create a T-Chart to accompany your answer.

|  |  |
| --- | --- |
| TIME PERIOD | EVENT/INNOVATION |
| 10 years ago | Shelter |
| 5 years ago | Writing/invention of the wheel |
| 2 years ago | Religion |
| 1 year ago | Printing Press |
| 2 months ago | Steam engine |
| Last month | Lights and telephone |
| Last week | Penicillin, television and nuclear power |

1. President Kennedy quoted Plymouth Colonist William Bradford “that all great and honorable actions are accompanied with great difficulties, and both must be enterprize and overcome with answerable courage.”  Using specific arguments from his speech explain President Kennedy’s purpose of using this phrase:

“We choose to go to the moon”… “not because they are easy, but because they are hard.”

1. Select four scientific innovations identified in President Kennedy’s speech that the United States had already successfully implemented defend each of their contributions.

**5. Assessment Prompt 2**
Using PBS website, students will use a graphic organizer to identify the key events of the Space Race and its impact on the Race to the Moon:
<http://www.pbs.org/wgbh/amex/moon/peopleevents/e_race.html>

|  |  |
| --- | --- |
| EVENT/PROGRAM | SIGNIFICANCE/IMPACT |
| SPUTNIK I | RUSSIAN SATELLITE THAT STARTED THE SPACE RACE.  UNITED STATES UNPREPARED FOR EARLY SOVIET LEAD. |
| NASA | NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (CREATED BY EISENHOWER TO DEVELOP SPACE PROGRAM) |
| YURI GAGARIN | RUSSIAN COSMONAUT WHO WAS THE FIRST MAN TO ORBIT THE EARTH |
| MERCURY PROGRAM(ALAN SHEPARD AND JOHN GLENN) | FIRST MAN SPACE FLIGHTS |
| PRESIDENT KENNEDY(SPEECH TO CONGRESS AND AT RICE UNIVERSITY) | DECLARED THE UNITED STATES CHALLENGE TO BE THE FIRST COUNTRY TO LAND A MAN OF THE MOON (BEFORE THE END OF THE DECADE -1960’s) |
| GEMINI PROGRAM | BRIDGE BETWEEN THE MERCURY AND APOLLO PROGRAMS.  (CREATED THE INFRASTRUCTURE TO LAND A MAN ON THE MOON AND RETURN TO THE EARTH) |
| SATURN V ROCKET | DEVICE THAT CREATED THE PROPULSION FOR LUNAR LANDING |
| APOLLO PROGRAM(NEIL ARMSTRONG) | LANDING A MAN ON THE MOON |

**6. Extended Thinking Activity**

Using ***Cicero Unit 14: Cold War*** Activities (Rocket Program), students will create an organizer comparing and contrasting V-2 Rocket of World War II with the Saturn V Rocket created for the Lunar landing.  Students will write paragraphs using information from the graphic organizer.
Homework/Assignment.

**7. Optional Project**

Have students script (provide the commentary) of the Launch, Landing and Return of the Apollo 11 spacecraft using Cicero Unit 14 Cold War Era - Maps (Trip to the Moon) <http://www2.cicerohistory.com/Cicero/navigate/uc/sid290.do>  Video is approximately 2 minutes long.

**Suggested Strategies for Differentiating Instruction**

|  |  |
| --- | --- |
|  | * Use of Resource Lab
* Extended Time
* Adapted Graphic Organizers
* Small group instruction with paraprofessional
* Refer to differentiated activities in the Instructional Procedures and Activities section.
 |
|  |  |

**Assessment of Student Learning (Formative and Summative)**

* **Formative:**
* Writing Assessments as part of Activiating Strategies, Assessment Prompts and Extended Thinking Activities
* Use of T-Chart and other graphic organizers to check understanding
* **Summative:**
* Unit Test on the Space Race
* Assessment of optional project
* **Refer to Activities and Procedures section for detailed assessment prompts.**

**Materials and Resources**

* **Refer to instructional resources and graphic organizers included in the Instructional Procedures and Activities section**.
* **Internet Resources**:

<http://www2.cicerohistory.com/Cicero/c/14/Lessons/HighSchool/Space_Age.pdf>

<http://www.forbes.com/2009/10/08/science-education-china-technology-cio-network-sputnik.html>

<http://www.npr.org/templates/story/story.php?storyId=14829195>

<http://www2.ed.gov/about/overview/fed/role.html>

<http://www.cbsnews.com/video/watch/?id=3303172n>

<http://csis.org/publication/role-nasa-40-years-after-lunar-landing>

<http://whitehousetapes.net/clips/1962_1121_apollo/>

<http://whitehousetapes.net/clip/john-kennedy-james-webb-robert-seamans-hugh-dryden-jerome-wiesner-fly-me-moon>

<http://www.history.com/videos/jfk-sets-goal-for-man-on-moon#jfk-sets-goal-for-man-on-moon>

<http://www.jfklibrary.org/Asset-Viewer/Hr0kebN1G0yeVrdAvZpEfQ.aspx>

<http://www.centennialofflight.gov/essay/SPACEFLIGHT/Sputnik/SP16.htm>

**Author(s) of Unit/Lesson Plan**

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