

NATIONAL EISENHOWER MEMORIAL EDUCATIONAL MATERIALS

LESSON

Atoms for Peace: Eisenhower and Nuclear Technology



Duration

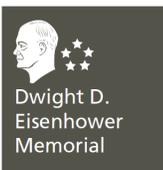
One 45-minute period

Grades

7–12

Cross-curriculum Application

U.S. History, World History, Media Arts



Historical Background

The advancement of nuclear technology and the subsequent devastation to Nagasaki and Hiroshima in 1945 from atomic bombs dropped on them during the final stages of World War II introduced a completely new means of waging war to the world. The fears that Americans associated with nuclear weapons only increased as first the Soviet Union and then communist China developed their own atomic bombs.

The issue of nuclear power was not just a problem for America but a global challenge, complicated largely by the lack of scientific data regarding military effect and environmental impact. It was within this context that Eisenhower took the unprecedented step of promoting the use of atoms for peace rather than for war. To convince Americans that nuclear power had positive benefits for the country, the federal government under Eisenhower launched a program called “Atoms for Peace.” The program took its name from a stunning speech delivered by Eisenhower to the United Nations General Assembly in 1953.

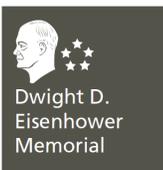
Eisenhower believed that “the only way to win World War III is to prevent it.” He recommended the creation of the International Atomic Energy Agency (IAEA) to help diffuse political tensions and solve the “fearful atomic dilemma” by both monitoring atomic weapons and supporting research into peaceful uses for atomic energy such as medicine and agriculture. Though established independently, the IAEA reports to both the United Nations General Assembly and Security Council. It continues to play a vital role in the search for peaceful uses for nuclear power, the creation of safeguards against its improper use, and the establishment of guidelines for nuclear safety.

Objective

Students will develop their own social media campaign either promoting or criticizing Eisenhower’s “Atoms for Peace” speech. They will do this by analyzing primary sources including the text of the speech, promotional posters, and government documents as well as researching the science behind nuclear power.

Essential Questions

1. What were Eisenhower’s foreign policy goals and his global perspective?
2. How did the Eisenhower administration promote a chance for peace?
3. What approaches did Eisenhower take on nuclear technology regarding the duality of security vs. liberty?



Sources

- » “Atoms for Peace.” 8 December 1953. Dwight D. Eisenhower. *Voices of Democracy, The U.S. Oratory Project*.

Text version: <http://voicesofdemocracy.umd.edu/eisenhower-atoms-for-peace-speech-text/>

Video version: <https://www.iaea.org/newscenter/multimedia/videos/atoms-peace-speech>

Audio version: <https://www.iaea.org/sites/default/files/eisenhower.mp3>

Teacher Notes: Speech given to the General Assembly of the United Nations by Eisenhower on the potentially peaceful uses for atomic energy.

Interesting details:

- *Eisenhower summarizes the United States’ involvement with nuclear technology, stating that since the first atomic explosion occurred in 1945 the U.S. has carried out 42 tests.*
- *Eisenhower warns that the Soviet Union has also been developing atomic weapons and that the knowledge of creating nuclear weapons “now possessed by several nations will eventually be shared by others...”*
- *Eisenhower calls for the creation of an International Atomic Energy Agency under the United Nations.*
- *Eisenhower hopes that atomic energy can be used for peaceful pursuits, such as medicine and agriculture, rather than for war.*
- *Eisenhower wants the world to see that the “great powers of the earth, both of the East and of the West, are interested in human aspirations first, rather than in building up the armaments of war.”*

- » “How the Peaceful Atom Works.” April 10, 1956. U.S. Information Agency. National Archives and Records Administration.

<https://catalog.archives.gov/id/6948914> (hospital and factory)

<https://catalog.archives.gov/id/6948915> (farm and power)

<https://catalog.archives.gov/id/6948913> (atomic energy)

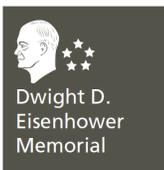
Teacher Notes: Promotional posters for the “Atoms for Peace” program.

Interesting details:

- *Posters promote the peaceful uses of nuclear energy in medicine, agriculture, and industry.*
- *They give a brief definition of atomic energy and state that a small cube of uranium-235 yields more energy than large amounts of coal, oil, and gas.*
- *One of the posters promotes nuclear energy’s use in the detection of diseases through radioisotopes.*

- » “Adventures Inside the Atom.” Comic Book Cover. 1948. General Comics, Inc. Atomic Energy Commission. National Archives and Records Administration.
<https://research.archives.gov/id/281568>
Teacher Notes: This comic book was created in 1948 by General Comics, Inc. and the Atomic Energy Commission for General Electric to promote atomic power as an energy source.
Interesting details:
- *The comic states that scientists are “releasing that atomic energy to serve us all in the future as a source of almost unlimited power.”*
 - *The comic presents nuclear energy as a positive adventure story, as the characters explore the history of the atom and the science behind nuclear power.*
- » “Preliminary Proposal for an International Organization to Further the Peaceful Uses of Atomic Energy.” June 8, 1954. Dwight D. Eisenhower Presidential Museum.
https://eisenhower.archives.gov/research/online_documents/atoms_for_peace/Binder8.pdf
Teacher Notes: Proposal outline for the Atomic Energy Agency, listing its objectives, structure, function, location, and financing.
Interesting details:
- *Two of the objectives of the proposed organization are to “improve health and well-being” and to strengthen “the hopes for peace.”*
 - *The proposal states that engineers, scientists, industrialists, and educators would be part of this organization.*
 - *The proposal declares that the organization should be formed as soon as possible in order to assuage world tensions.*
- » “Memorandum, Lewis Strauss to president, re: proposal of nuclear sharing.” September 17, 1953. Lewis Strauss. Dwight D. Eisenhower Presidential Museum.
https://www.eisenhower.archives.gov/research/online_documents/atoms_for_peace/1953_09_17.pdf
Teacher Notes: In this memo, Lewis Strauss, the chairman of the U.S. Atomic Energy Commission, answers Eisenhower’s questions regarding the proposed nuclear sharing program.
Interesting details:
- *Strauss states that the main goal of the United States in nuclear sharing is stockpiling, but the Soviet Union’s main goal is to expand rapidly.*
 - *The memo explains that the proposed nuclear sharing might be useful for propaganda purposes.*

- » “Mutants for Nuclear Power” Environmental Button. No Date. National Museum of American History. Smithsonian Institution.
http://collections.si.edu/search/results.htm?q=record_ID%3Anmah_1284018&repo=DPLA
Teacher Notes: This protest button criticizes nuclear energy.
Interesting details:
- *The button features a smiley face with one eye to suggest that nuclear energy is a threat to human health.*
 - *People against using nuclear power as an energy source would have worn this button to spread their message.*
- » *Environmental Effects of Nuclear Weapons.* 1965. Robert Ayres. U.S. Department of Defense, Office of Civil Defense, Pages 1-3.
<https://babel.hathitrust.org/cgi/pt?id=mdp.39015049800801;view=1up;seq=7>
Teacher Notes: This report was prepared for the Department of Defense in 1965 to understand the impact of nuclear weapons on the environment.
Interesting details:
- *The report states that there are four areas of nuclear weapon effects: radiological, thermal, meteorological, and secondary.*
 - *Meteorological effects include damage to the weather and climate by “nuclear debris in the atmosphere.”*
 - *The report notes that humans, animals, insects, and plants constitute part of the environment when considering nuclear effects.*
- » “World Coal; Oil. World Natural Gas; Hydroelectric Power; Nuclear Power.” 1968. McGraw Hill Book Company. David Rumsey Map Collection.
<http://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~243569~5513490>
Teacher Notes: This map from a textbook shows different energy sources throughout the world in 1968.
Interesting details:
- *The map shows oil-producing regions in the Middle East and South America and coal deposits in Europe and Russia [USSR].*
 - *The source includes graphs of the oil, coal, and natural gas production of the United States compared to other reporting countries.*
 - *In the bottom right-hand corner, the map shows the number and location of nuclear power plants, as well as plants under construction.*



- *Note that this map was created only fifteen years after Eisenhower’s “Atoms for Peace” speech.*

Materials

- » Source Discovery Handout
- » Social Media Campaign Worksheet

Preparation

- Print copies of the Source Discovery Handout - one for each student group.
- Print copies of the Social Media Campaign Worksheet - one for each student group.
- Print copies of the sources for each student group.
- Cue the “Waging Peace” video <http://eisenhowermemorial.gov/experience/#/waging_peace/588> from the Eisenhower E-Memorial to show students.

Procedure

1. Essential Questions to write on board: What were Eisenhower’s foreign policy goals and his global perspective? What approaches did Eisenhower take on nuclear technology regarding the duality of security vs. liberty? How did the Eisenhower administration promote a chance for peace?
2. Provide students with background on Eisenhower and the nuclear age. Show the “Waging Peace” video from the Eisenhower E-Memorial. For additional context, students may be assigned the “Atoms for Peace” article in the *Related Resources* below.
3. Pass out one copy of the Source Discovery Handout to each student group.
4. Tell students they will analyze the sources and develop a social media campaign either promoting or criticizing Eisenhower’s “Atoms for Peace” program. Have a discussion with the students about what makes a good social media campaign: What is the message of the campaign? What examples, such as quotes and images, might help illustrate that message? What are the advantages and disadvantages of different social media platforms, such as Twitter and Facebook? Write these answers on the board for students to reference when they design their campaign.

5. Pass out copies of the sources to each student group.
6. Ask the students to carefully review the primary sources. Tell the students to complete the Source Discovery Handout for at least two of the sources - one promoting “Atoms for Peace” and one criticizing nuclear power. In the table, students will record basic sourcing information (title, date, creator), details about the message, and evidence for that message in the source. You may want to choose one source and complete it together as a class for an example.
7. Pass out one copy of the Social Media Campaign Worksheet to each student group.
8. Using the Social Media Campaign Worksheet, student groups will plan and design a social media campaign using the platform of their choice. Possible social media platforms include Twitter, Instagram, Facebook, YouTube, and blogging sites. Stress that it is important that the campaign use real examples and facts from the sources in their primary sources.

Differentiation

The text sources may be further excerpted to accommodate different levels of reading ability. The “Atoms for Peace” speech may be shown as a video or listened to in audio format.

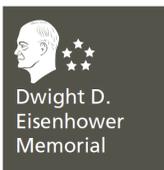
If computers, or a computer lab, are available, teachers may set up mock social media accounts for students to use in the assignment. They could design and “publish” a post either promoting or criticizing “Atoms for Peace.” Teachers must set strict privacy settings and could always delete the accounts after the lesson. See *Related Resources* below for examples.

Teachers may also make use of the Teacher Notes that accompany the above sources. Providing these notes to students may help them to notice important details within the sources.

Assessment

Students will be assessed on their social media campaign and how it reflects an understanding of the primary sources and the science behind nuclear power. For example, does the campaign notice key details in the sources and use them to support a positive or negative stance on “Atoms for Peace”?

Per the attached rubric, student work on the Source Discovery Handout and Social Media Campaign Worksheet should demonstrate a factual understanding as well as critical thinking in using evidence to support an argument. The rubric evaluates student work in four categories: Factual Understanding, Sourcing, Evidence-Based Claim, and Presentation.



Related Resources

Lesson Plans

- » “Nuclear Science: Understanding the Development and Control of Nuclear Energy.” Gayla O’Connor. Harry S. Truman Library and Museum.

http://www.trumanlibrary.org/whistlestop/teacher_lessons/nukescience_toc.htm

This lesson plan covers the atomic age from the perspective of physical science.

- » “WWII Atomic Bomb Lesson Plan.” Stanford History Education Group.

http://sheg.stanford.edu/upload/Lessons/Unit%2010_New%20Deal%20and%20World%20War%20II/Atomic%20Bomb%20Lesson%20Plan.pdf

In this lesson, students consider how to remember the dropping of the atomic bomb in 1945 from the perspective of two experts: a Japanese historian and an American historian.

Secondary Sources and Digital Resources

- » “Atoms for Peace.” Dwight D. Eisenhower Presidential Museum.

https://www.eisenhower.archives.gov/research/online_documents/atoms_for_peace.html

This site provides a short article for context on the “Atoms for Peace” program.

- » “Atoms for Peace: The Mixed Legacy of Eisenhower’s Nuclear Gambit.” Jesse Hicks. Chemical Heritage Foundation.

<http://www.chemheritage.org/discover/media/magazine/articles/32-2-atoms-for-peace.aspx?page=1>

This article considers the impact and lasting effect of Eisenhower’s “Atoms for Peace” program.

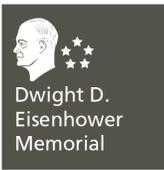
- » “Social Media for Teachers: Guides, Resources, and Ideas.” February 18, 2015. Matt Davis. Edutopia.

<http://www.edutopia.org/blog/social-media-resources-educators-matt-davis>

This article presents helpful information on using social media in the classroom and provides links to examples.

Primary Sources

- » “Duck and Cover.” 1951. Federal Civil Defense Administration.
<https://archive.org/details/gov.ntis.ava11109vnb1>
Educational video (~9 minutes) about the atomic bomb published in 1951 after the Soviet Union began testing nuclear technology.
- » “Atoms for Peace Exhibit.” June 19, 1959. *Daily Reflector*, Greenville, NC. Digital Collections of East Carolina University.
<https://digital.lib.ecu.edu/3701>
This photograph depicts a traveling “Atoms for Peace” exhibit truck in North Carolina, which explained atomic energy to the public.
- » “Atoms for Peace.” Dwight D. Eisenhower Presidential Museum.
https://www.eisenhower.archives.gov/research/online_documents/atoms_for_peace.html
This site features a collection of digitized primary sources related to the “Atoms for Peace” program, including text and images.
- » *Atoms for Peace: U.S.A 1958*. 1958. John F. Hogerton.
<https://babel.hathitrust.org/cgi/pt?id=mdp.39015004492115;view=thumb;seq=1>
This text was prepared for the U.S. Atomic Energy Commission and surveys the peaceful uses of atomic energy. It includes many images depicting nuclear research.



Source Discovery Handout

Directions: *Examine the sources and use them to fill out the following table:*

Source: Title, Creator, Date (if applicable)	List three details you notice about the source.	Does this source present a positive or negative view on nuclear technology? Use the evidence from the source.
1.	A. B. C.	
2.	A. B. C.	



Social Media Campaign Worksheet

Directions: *You will plan and design a social media campaign either promoting or criticizing Eisenhower’s “Atoms for Peace” program. Select two to three sources from this lesson to use in the campaign and explain why you chose them. Choose from the following social media platforms: Twitter, Instagram, Facebook, or a blogging site.*

What stance will you be taking on “Atoms for Peace”?

What sources (2-3) do you plan to highlight in your campaign? Why did you choose these sources?

What is the platform for the social media campaign? Why did you choose this platform?

Social media campaigns often use a combination of images, videos, and text, as well as features that connect global conversations, such as hashtags and commenting, to convey their message. How will you convey the message through these elements?

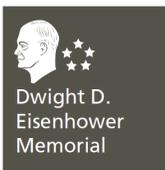


Social Media Campaign Worksheet cont.

Describe or sketch two to three sample posts from your campaign below:

Atoms for Peace Rubric

	Fully Meets Expectations	Minimally Meets Expectations	Not Yet Within Expectations
	<i>3 points</i>	<i>2 points</i>	<i>1 point</i>
Factual Understanding	The social media campaign demonstrates understanding of the main idea of each source (or piece of evidence) and identifies key details.	The social media campaign demonstrates understanding of the main idea of each source (or piece of evidence) but does not identify key details.	The social media campaign does not demonstrate understanding of the main idea of each source (or piece of evidence).
Sourcing	The social media campaign demonstrates understanding of each source's origin: especially when it was created and the creator's goal.	The social media campaign demonstrates partial understanding of each source's origin: when it was created and the creator's goal.	The social media campaign demonstrates insufficient understanding of each source's origin: when it was created and the creator's goal.
Evidence-Based Claim	The social media campaign makes a reasonable claim advertising positive or negative views for the "Atoms for Peace" program and uses appropriate evidence to support that claim.	The social media campaign makes a reasonable claim advertising positive or negative views for the "Atoms for Peace" program, but the sources and evidence only partially support that claim.	The social media campaign makes a claim advertising positive or negative views for the "Atoms for Peace" program that is not supported by appropriate sources and evidence.
Presentation	The campaign is well-organized and clear with an attractive design. No (or only minor) spelling and grammar errors.	The campaign is somewhat disorganized and unclear. Design detracts from message. Several spelling and grammar mistakes.	Campaign shows little or no organization. Unclear or confusing design. Repeated major spelling and grammar errors.



Dwight D. Eisenhower, Excerpts from “Atoms for Peace,” December 8, 1953

Madame President, Members of the General Assembly [of the United Nations]: Never before in history has so much hope for so many people been gathered together in a single organization. Your deliberations and decisions during these somber years have already realized part of those hopes. But the great tests and the great accomplishments still lie ahead.

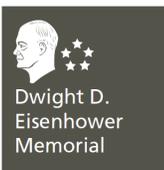
I know that the American people share my deep belief that if a danger exists in the world, it is a danger shared by all—and equally, that if hope exists in the mind of one nation, that hope should be shared by all....

The atomic age has moved forward at such a pace that every citizen of the world should have some comprehension, at least in comparative terms, of the extent of this development, of the utmost significance to every one of us. Clearly, if the peoples of the world are to conduct an intelligent search for peace, they must be armed with the significant facts of today’s existence.

On July 16th, 1945, the United States set off the world’s first atomic explosion. Since that date in 1945, the United States of America has conducted 42 test explosions. Atomic bombs today are more than 25 times as powerful as the weapons with which the atomic age dawned, while hydrogen weapons are in the ranges of millions of tons of TNT equivalent...A single air group, whether afloat or land-based, can now deliver to any reachable target a destructive cargo exceeding in power all the bombs that fell on Britain in all of World War II....

But the dread secret, and the fearful engines of atomic might, are not ours alone...The Soviet Union has informed us that, over recent years, it has devoted extensive resources to atomic weapons. During this period, the Soviet Union has exploded a series of atomic devices, including at least one involving thermo-nuclear reactions.

If at one time the United States possessed what might have been called a monopoly of atomic power, that monopoly ceased to exist several years ago. Therefore, although our earlier start has permitted us to accumulate what is today a great quantitative advantage, the atomic realities of today comprehend two facts of even greater significance. First, the knowledge now possessed by several nations will eventually be shared by others, possibly all others. Second, even a vast superiority in numbers of weapons, and a consequent capability of devastating retaliation, is no preventive, of itself, against the fearful material damage and toll of human lives that would be inflicted by surprise aggression....



Dwight D. Eisenhower, Excerpts from “Atoms for Peace,” December 8, 1953

It is with the book of history, and not with isolated pages, that the United States will ever wish to be identified. My country wants to be constructive, not destructive. It wants agreements, not wars, among nations. It wants itself to live in freedom, and in the confidence that the people of every other nation enjoy equally the right of choosing their own way of life....

The United States knows that peaceful power from atomic energy is no dream of the future. That capability, already proved, is here–now–today. Who can doubt, if the entire body of the world’s scientists and engineers had adequate amounts of fissionable material with which to test and develop their ideas, that this capability would rapidly be transformed into universal, efficient, and economic usage?

I therefore make the following proposal:

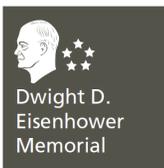
The Governments principally involved, to the extent permitted by elementary prudence, to begin now and continue to make joint contributions from their stockpiles of normal uranium and fissionable materials to an International Atomic Energy Agency. We would expect that such an agency would be set up under the aegis of the United Nations....

The Atomic Energy Agency could be made responsible for the impounding, storage, and protection of the contributed fissionable and other materials. The ingenuity of our scientists will provide special safe conditions under which such a bank of fissionable material can be made essentially immune to surprise seizure.

The more important responsibility of this Atomic Energy Agency would be to devise methods whereby this fissionable material would be allocated to serve the peaceful pursuits of mankind. Experts would be mobilized to apply atomic energy to the needs of agriculture, medicine, and other peaceful activities. A special purpose would be to provide abundant electrical energy in the power-starved areas of the world. Thus the contributing powers would be dedicating some of their strength to serve the needs rather than the fears of mankind....

I would be prepared to submit to the Congress of the United States, and with every expectation of approval, any such plan that would:

First, encourage world-wide investigation into the most effective peacetime uses of fissionable



Dwight D. Eisenhower, Excerpts from “Atoms for Peace,” December 8, 1953

material, and with the certainty that they had all the material needed for the conduct of all experiments that were appropriate;

Second, begin to diminish the potential destructive power of the world’s atomic stockpiles;

Third, allow all peoples of all nations to see that, in this enlightened age, the great powers of the earth, both of the East and of the West, are interested in human aspirations first, rather than in building up the armaments of war;

Fourth, open up a new channel for peaceful discussion, and initiate at least a new approach to the many difficult problems that must be solved in both private and public conversations, if the world is to shake off the inertia imposed by fear, and is to make positive progress toward peace....

Against the dark background of the atomic bomb, the United States does not wish merely to present strength, but also the desire and the hope for peace... Thank you.