The Atomic Age
Support and Opposition to Atomic Weapons and Energy

INTRODUCTION:
In this activity, students will be introduced to the topic of the Atomic Age. During the period from 1945-1962, people all across the United States debated the topic of atomic energy and weapons. Many people supported their use, while others questioned their efficacy. Much of this debate played out in newspaper columns and editorial letters. In this Document Based Question activity, students will read excerpts from newspaper articles printed during this time period. Students will analyze these excerpts and use them as evidence in a final essay that argues for or against the use of atomic energy and/or weapons.

GRADES:
8 – 12

DURATION:
45 – 180 minutes (if using for Advanced Placement United States History (APUSH), stay within AP’s recommended time limits for DBQs)

STANDARDS:
Ohio Social Studies Standards American History
- AMH.9-12.1: The use of primary and secondary sources of information includes an examination of the credibility of each source.
- AMH.8-12.2: Historians develop theses and use evidence to support or refute positions.
- AMH.9-12.3: Historians analyze cause, effect, sequence and correlation in historical events, including multiple causation and long- and short-term causal relations.
- AMH.9-12.22: Use of atomic weapons changed the nature of war, altered the balance of power and began the nuclear age.
- AMH.9-12.23: The United States followed a policy of containment during the Cold War in response to the spread of communism.
- AMH.9-12.25: The Cold War and conflicts in Korea and Vietnam influenced domestic and international politics.
- AMH.9-12.27: The postwar economic boom and advances in science and technology produced changes in American life.

Ohio English Language Arts Standards Literacy in History/Social Studies, Science, and Technical Subjects
- WHST.9-10.1: Write arguments to support claims in analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
  - A. Establish a clear and thorough thesis to present an argument.
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- B. Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among claim(s), counterclaims, reasons, and evidence.
- C. Develop claim(s) and counterclaims fairly, supplying evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience’s knowledge level and concerns.

**WHST.11-12.1:** Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
- A. Establish a clear and thorough thesis to present a complex argument.
- B. Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences claim(s), counterclaims, reasons, and evidence.
- C. Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience’s knowledge level, concerns, values, and possible biases.

**LEARNING OBJECTIVES:**
- Students will develop their research, analytical, and writing skills
- Students will learn to develop a persuasive argument using evidence found in primary sources
- Students will understand how the invention of nuclear fission led to various inventions and discussion over its use.

**BACKGROUND INFORMATION:**
With the bombings of Hiroshima and Nagasaki in 1945, discussion of the efficacy of atomic weapons and energy skyrocketed. Although the concept of harnessing the atom for military and economic purposes had been proposed as early as 1932, it was the onset of World War II that led to dedicated nuclear fission research among multiple countries. The destructive power of the atomic bomb was proven with the dual bombings that ended the war, but with it came the concern amongst scientists, politicians, and the general public that humanity had just invented the tool of its own future demise.

Discussion immediately centered on several topics. First was the proposal by many European scientists and intellectuals to ban the use of atomic weapons and nuclear fission entirely (a possibility, although faint, since only the United States had access to successful atomic weapons in 1945). Others discussed if and when other world powers, particularly the Soviet Union, would also create an atomic bomb. Once the Soviet Union did gain access to the bomb in 1949, other European nations clamored for the United States to share its research with its allies to dissuade the Soviet Union from invading Europe. Meanwhile, in 1946 the United States created the Atomic Energy Commission (AEC) to develop peacetime atomic technology. In the 1950s, many newspapers reported the efforts of the AEC to develop nuclear energy, as well as the experiments of nuclear energy on the environment. Although discussion of the use of the atom has never faded from the public consciousness, its discussion trended downwards after the Cuban Missile Crisis.
MATERIALS:
- “Atomic Energy: Support or Opposition” introduction sheet
- 18 newspaper articles
- Analysis questions

ACTIVITY OUTLINE:
1. Hand out the “Atomic Energy: Good or Bad” introduction sheet, newspaper articles, analysis questions and “Report on the Efficacy of Atomic Energy” worksheet. Have students read the introduction to the worksheet before having them break off and work individually on the DBQ, reading each newspaper excerpt, analyzing them, and writing the essay using the information they glean from each document.
   a. If you are utilizing the activity for ELA standards, it is advised not to give them additional information besides what is in the packet so that you can best gauge your students’ ability to build a persuasive argument from the documents given to them.
   b. If you are using the activity for Social Studies standards then it is advised to read them at least part of the background information provided above.
Atomic Energy: Support or Opposition?

On August 6th, 1945, the first atomic bomb was dropped on the human race at Hiroshima, Japan, killing between 90,000-150,000 people and ushering in the atomic age. Although nuclear fission had been discovered in 1938, the invention of the atomic bomb brought both hope and despair. Newspapers around the world grappled with question of whether atomic energy would bring about a new golden age or the destruction of humanity. In 1946, the Atomic Energy Commission (AEC) was created to decide whether to continue promoting nuclear development during peacetime. You are a Congressman or Congresswoman on the AEC deciding on the fate of nuclear energy in America. Will you seek to promote its use, or ban it entirely? Read through the opinions of 1940s and 1950s newspapers and decide!

But what is atomic energy?

Atomic energy, also known as nuclear energy, is created when the nucleus of an atom is split in a process known as “nuclear fission.” This releases a massive amount of energy that can be harnessed for multiple purposes.

The first use of nuclear fission was in the creation of atom bombs by the United States during World War II. These bombs had the ability to level entire cities and kill hundreds of thousands of people in an instant.

After the war, discussion began on how best to use atomic energy. Many believed that the invention of atomic energy was dangerous and would lead to the destruction of humanity. Others believed it would create a new age in which poverty and war would disappear entirely. Discussion centered around who would gain access to atomic energy.

Although the United States was the first country to develop atomic energy, their rival, the Soviet Union, tested their own atomic bomb in 1949. Throughout the 1950s, countries continued to develop new inventions related to atomic energy. Your role as a member of the AEC is to determine what the various issues surround atomic energy are, and whether to continue experiments with it, or to ban its use entirely. Read the following documents before assembling your final report for the Commission!
WASHINGTON, Aug. 6.—(AP)—The U.S. Army air force has released on the Japanese an atomic bomb containing more power than 20,000 tons of TNT. It produces more than 2,000 times the blast of the largest bomb ever used before.

The announcement of the development was made in a statement by President Truman, released by the White House today. The bomb was dropped 16 hours ago on Hiroshima, an important Japanese army base.

"Bomb Will Necessitate.

The President said that this discovery may open the way for an entirely new concept of force and power. The actual harnessing of atomic energy may in the future supplement the power that now comes from coal, oil and the great dams, he said.

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"It is an atomic bomb. It is a harnessing of the basic power of the universe. The force from which the sun draws its power has been loosed against those who brought war to the Far East."

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ARTICLE 2

TRANSCRIPT
All London papers commented today on the use of the atomic bomb on Japan, and the staid Manchester Guardian remarked that man may have invented something that will destroy himself ultimately. Other papers declared that the discovery in trapping and then releasing atomic force will change the entire strategy of war. No longer.
The atomic bomb has loosened most terrifying and gigantic energy. Our scientists are afraid of what they have discovered. Can they control it? If so, could it be used to keep the darker races, as some might say “inferior” races, in indefinite subjection? It would take many years of industrialization of darker peoples and that has not even started, before they could develop such a deadly and human destroying weapon as the atomic bomb. What then? Despite the fact that the darker races number two thirds of the population of the world, they would still be at the mercy of the lighter skinned, but less numerous neighbors.”
“Shocked as we are by the terrible and devastating effect of this new explosive, we cannot help thinking that it will eventually prove a great blessing to humanity.

“For nothing is better calculated to prevent future wars than the knowledge of the common people in every nation of the world that now warfare may mean total annihilation. No dictator in the years to come will be able to persuade his people to chance that kind of retribution for aggression.

“The assurance of lasting peace will give science, labor and industry a glorious opportunity to put the mighty resources of the atom to work for the constructive benefit of mankind. The power to destroy can and must be transformed to the power to build.”

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TRANSCRIPT
This country [the United States] is not big enough, not rich enough and not good enough to handle by itself the atomic bomb and the secrets thereof. Just as power politics have doomed and damned Europe for lo these many centuries; so our great country is resorting to fear politics – power politics by another name – to achieve certain political objectives in international relations. It simply cannot be done!
ARTICLE 6

TRANSCRIPT
Russian proposals that we stop making atom bombs and destroy those we have on hand met with a chilly reception from the American public. Distrust of Russian has been one of the major reasons for this sentiment...Whether these views on the part of the American people are right or wrong, they appeared to be held with considerable tenacity at the time the Institute poll was taken during the last two weeks of November. A series of surveys was conducted by the Institute among a scientifically-selected cross-section of the voting population in all the 48 states. The first question put to the voters was: “Do you think the United States should stop making atom bombs and destroy all those we now have?” The vote: Yes, 21%. No, 72%. No opinion, 7%.”
“The U.S. is not as well off atomically, as we were 20 months ago when the bomb was dropped on Hiroshima,” said Lilienthal. Declaring that “we have lost time – much of it unavoidable,” Lilienthal asked, “Are we to maintain and increase the headstart we had on the world or fall behind? Will we fool around and politic around, or are we to press forward in the vigorous tradition of a pioneer nation?”
TRANSCRIPT
Europe received the announcement that Russia set off an atomic explosion recently with mixed optimism and apprehension today. Russia sat tight and said nothing. The British government said it had expected other nations would eventually develop atomic energy. It added this probability had always been taken into account. The Western press expressed belief that the atomic blast might ease Russian suspicions of American power and bring the two nations together as partners in establishing atomic controls.
ARTICLE 9

TRANSCRIPT
When will Russia be ready to fight an atomic war? There was a prediction yesterday from a group of atomic experts overseas—the Atomic Scientists of Britain. Within a year or two at the most, British experts warn, Russia will have enough atom bombs to fight a war with. From this, the British scientists conclude that in a war in which atom bombs are used at all, they’ll be used by both sides, not by just one of the big contestants. And, say the scientists, in densely populated Western Europe the resulting havoc could mean a complete collapse of civilization as we know it. The British group sees no hope for international control of atomic weapons. It predicts flatly that atom bombs will be used if either side in any major war finds it advantageous to do so.
Western Europeans, like ourselves, estimated that Russia was afraid of the atomic bomb and would not dare start anything until 1955, at the earliest. This was expected to be a much-needed breathing spell, permitting not only Western Europeans but also the United States to get ready for any emergency. The news released from the White House last September that the Russians had exploded their first atomic bomb had the effect of a cold shower on the peoples of Western Europe. The A-bomb had been our ace-in-the-hole. If it was true that the Russians had succeeded in translating their atomic formulas into actual weapons, the prospect for Europe was sad, indeed.

French, Italians, Belgians and Dutch began to shake their heads. They began seeing visions of their ancient and beautiful cities being pulverized by superbombs and wondered whether they had not been too rash in committing themselves to a definite policy of "containing communism," by force if necessary.
TRANSCRIPT

Senator McMahon (D-Conn.) has called for all-out mass production of atomic weapons to equip a mighty atomic army, navy, and air force. He said emphasis on atomic rather than conventional armaments would save U.S. taxpayers $30,000,000,000 [30 billion dollars] a year. “Dollar for dollar,” McMahon declared, “atomic deterring power is actually hundreds of times cheaper than TNT. An atomic weapon can produce, at a cost of twenty or thirty dollars, the same explosive force which costs literally thousands of dollars to produce by ordinary means.”
When most of us think about atomic energy, we think of the atomic bomb — of the familiar mushroom cloud and the fantastic amounts of energy released in a split second during an atomic explosion. Yet it cannot be repeated too often that the primordial force of the atomic energy, like all of nature’s forces, can be directed toward constructive, as well as destructive, ends. In fact, the secondary in their minds. They anticipated, instead, that atomic energy might someday be used to furnish man with useful industrial power — with electricity for lighting cities and running factories. This was almost always.

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...we wonder if man has now found a “toy” that is apt to exceed his control. Is it possible that atomic bombs of the future may start a chain reaction which could result in the destruction of earth... or create a force that might alter the existing forces of nature?
**Transcript**

Bills to turn the peacetime benefits of atomic energy to private interests are now before Congress… Electric power from atomic energy is the obvious and immediate big prize involved in the peacetime uses of the atom. Low-cost electricity from atomic energy is now possible. The first such plant is now being built, with government subsidies, for a Pittsburgh power company.
Born of wartime urgency, great strides have been taken toward brushing away unnecessary secrecy and encouraging the development of peacetime uses of the atom for the improvement of mankind. The use of radio-active isotopes in medicine to diagnose and treat diseases has already extended the lives of untold thousands of our people. The use of these same isotopes in agriculture and industry is already repaying the nation by several hundred millions of dollars each year. Electric power generation by atomic processes is already well advanced by private industry. Altogether, work on an atomic-powered aircraft continues. The first atomic submarine is a reality, still using its original fuel after two years. Congress this year authorized the construction of the S.S. Seawolf, a second atom-powered submarine and the largest under-sea craft ever built. This activity is the stirring of the vast forces of the atom being harnessed for both peace and war. No other of our national efforts so dramatically illustrates the choice of men today— to use this power to destroy ourselves or to relieve human misery in a new age of plenty and security.
Should nuclear weapons be given to allies?...Government agencies testifying on the measure say that it is necessary to give our allies nuclear preparedness and to help them avoid the cost and effort necessary to develop weapon parts themselves... Critics of the proposal assert that it does not name those countries which would be given our materials. They say that the bill will create additional nuclear powers, possibly including unstable governments and perhaps even a government that, while now friendly to this country, may in the future turn out to be hostile as the result of strong internal communist pressure.
Atomic Power Coming Faster Than Expected

By BARROW LYONS, Special to the PEOPLE’S VOICE

WASHINGTON, D. C.—Within a few years the world can expect to see at night electric lights powered by atomic energy gleaming even across the dark steppes of Russia and from the windows of mountain villages in India. Atomic power plants will be found around the world sooner than the public has been given to expect.

Fourteen experimental nuclear energy plants are now delivering power to electric utility grids in various parts of the world, and at least 20 more are under construction, Grahl reported.

Within perhaps 4 to 6 years a number of countries expect to be operating plants that are economically competitive with conventional generating stations, he reports.

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TRANSCRIPT

If the Soviet Union beats the United States in developing “atoms for peace,” then the effect among the uncommitted nations will be far more serious than the impact of sputniks [Soviets in space]. “If the Russians are the first to introduce economical atomic electrical power plants into the cities of Asia, lighting the dark streets of the cities, this would be a constant monument to the scientific progress of the Soviet Union,” Holifield asserted. “It would be an ever-present demonstration of their supremacy in the field.”
ANALYSIS QUESTIONS
After looking through the documents, what are some of the benefits of atomic energy? What are some of the problems? Outline them and cite the documents from which you pulled that information.

REPORT ON THE EFFICACY OF ATOMIC ENERGY
Write your report on the problems and benefits of atomic energy from the perspective of the United States Atomic Energy Commission. Explain what the progress of atomic energy has been over the 1940s and 1950s, and give your opinion on whether atomic energy should continue to be supported in the United States or banned. Give at least three separate arguments for your side. Cite at least 8 articles in your report that back up your arguments.