Topic: Analysis of the Manhattan Project

Grade Level: 11th Grade United States History and Government

Historical Context:
President Harry S. Truman’s decision to use the Atomic Bomb ending the Second World War was the culmination of a long line of administrative decisions. As part of his Commander-in-Chief powers, Franklin D. Roosevelt’s establishment of the Manhattan Project in 1942 brought together scientists, military personnel, and public officials. This project was so Top Secret that Truman, his own Vice-President, learned about it only after Roosevelt’s death. With the war in the Pacific still to be won, Truman is faced with making one of the most difficult decisions in history.

New York State Learning Standards:
Standard 1: Students will use a variety of intellectual skills to demonstrate their understanding of major ideas, eras, themes, developments, and turning points in the history of the United States. This module addresses this standard by focusing on the transition of the United States as the world’s first atomic power.

Standard 4: The skills of historical analysis include the ability to explain the significance of historical evidence; weigh the importance, reliability, and validity of evidence; and through the analysis of historical narrative about key events in United States History identify the facts and evaluate the perspective of documents. The students will be asked to use the documents analyze the process whereby the U.S. became a atomic power.

Learning Objectives:
Students will be able to:
- understand the interrelationships between world events and developments in the United States
- trace the evolution of the Manhattan Project from its development to its utilization through a series of documents that explore the decision made

Essential Questions:
- What role did the Manhattan Project play in the outcome of World War II?
- How do the documents demonstrate the decision making power of the President as Commander in Chief?
- Should the United States have developed the atomic bomb in the first place?
**Overview of the Learning Experience Module:**
The traditional analysis of the Manhattan Project tends to focus on the human rights issue of whether or not Truman should have authorized the use of the atomic bomb. This module emphasized the political process of how the United States managed to emerge as an atomic superpower.

This module will be derived from Unit Six of the New York State Core Curriculum: “The United States in an Age of Global Crisis: Peace in Peril: 1933-1950, The United States in World War II.”

**Time Allotment:** 2 class periods (43 minutes)

**Vocabulary and Key People:**
uranium    foreign relations    J. Edgar Hoover    espionage
Albert Einstein    psychological warfare    mushroom cloud    Joseph Stalin
tube alloys    Hiroshima    prisoners of war

**DIRECTED QUESTIONS FOR STUDENTS USING DOCUMENTS:**

**Document # 1**
In what ways did Albert Einstein’s letter to President Roosevelt influence the development of the atomic power program?

**Document # 2**
What position did Roosevelt and Churchill share concerning the development of the atomic bomb?

**Document # 3**
Of what did J. Edgar Hoover inform President Roosevelt in his letter of November 16, 1944?

**Document # 4**
Shortly after the death of President Roosevelt in April 1945, President Truman received a memo from Secretary of War Henry Stimson. What message was Stimson conveying to the new President?

**Document # 5**
What conclusions can be drawn from the Memorandum and diagram for the Secretary of War on the results of the test of atomic power in New Mexico?

**Document # 6**
At the Potsdam Conference in July 1945, Stalin and Churchill met with President Truman for the first time (after Roosevelt’s death) to discuss post war plans. Analyze Truman’s discussion with Stalin.

**Document # 7**
What techniques does Truman use in his pamphlet to the Japanese people concerning the use of a new weapon?

**Document # 8**
What is Truman’s justification on using the atomic bomb in his letter to Mr. Cavert?
F.D. Roosevelt,
President of the United States,
White House
Washington, D.C.

August 2nd, 1939

Sir:

Some recent work by E. Fermi and L. Szilard, which has been communicated to me in manuscript, leads me to expect that the element uranium may be turned into a new and important source of energy in the immediate future. Certain aspects of the situation which has arisen seem to call for watchfulness and, if necessary, quick action on the part of the Administration. I believe therefore that it is my duty to bring to your attention the following facts and recommendations:

In the course of the last four months it has been made probable - through the work of Joliot in France as well as Fermi and Szilard in America - that it may become possible to set up a nuclear chain reaction in a large mass of uranium by which vast amounts of power and large quantities of new radium-like elements would be generated. Now it appears almost certain that this could be achieved in the immediate future.

This new phenomenon would also lead to the construction of bombs, and it is conceivable - though much less certain - that extremely powerful bombs of a new type may thus be constructed. A single bomb of this type, carried by boat and exploded in a port, might very well destroy the whole port together with some of the surrounding territory. However, such bombs might very well prove to be too heavy for transportation by air.
The United States has only very poor ores of uranium in moderate quantities. There is some good ore in Canada and the former Czechoslovak while the most important source of uranium is Belgian Congo.

In view of this situation you may think it desirable to have some permanent contact maintained between the Administration and the group of physicists working on chain reactions in America. One possible way of achieving this might be for you to entrust with this task a person who has your confidence and who could perhaps serve in an unofficial capacity. His task might comprise the following:

a) to approach Government Departments, keep them informed of the further development, and put forward recommendations for Government action giving particular attention to the problem of securing a supply of uranium ore for the United States;

b) to speed up the experimental work, which is at present being carried on within the limits of the budgets of University laboratories, by providing funds, if such funds be required, through his contacts with private persons who are willing to make contributions for this cause, and perhaps also by obtaining the co-operation of industrial laboratories which have the necessary equipment.

I understand that Germany has actually stopped the sale of uranium from the Czechoslovakian mines which she has taken over. That she should have taken such early action might perhaps be understood on the ground that the son of the German Under-Secretary of State, von Weizsäcker, is attached to the Kaiser-Wilhelm-Institut in Berlin where some of the American work on uranium is now being repeated.

Yours very truly,

A. Einstein

(Albert Einstein)
TUBE ALLOYS

Aide-memoire of conversation between the President and the Prime Minister at Hyde Park, September 18, 1944.

1. The suggestion that the world should be informed regarding Tube Alloys, with a view to an international agreement regarding its control and use, is not accepted. The matter should continue to be regarded as of the utmost secrecy; but when a "bomb" is finally available, it might perhaps, after mature consideration, be used against the Japanese, who should be warned that this bombardment will be repeated until they surrender.

2. Full collaboration between the United States and the British Government in developing Tube Alloys for military and commercial purposes should continue after the defeat of Japan unless and until terminated by joint-agreement.

3. Enquiries should be made regarding the activities of Professor Bohr and steps taken to ensure that he is responsible for no leakage of information, particularly to the Russians.

[Signature]

[Date] 18.9
Federal Bureau of Investigation
United States Department of Justice
Washington, D. C.
November 16, 1944

PERSONAL
BY SPECIAL MESSENGER

Honororable Harry L. Hopkins
The White House
Washington, D. C.

Dear Harry:

A German espionage agent presently in the United States under the control of this Bureau advised that he was instructed to obtain, among other subjects, information concerning (1) the progress made by the United States since 1941 with respect to the development of atomic explosives, (2) whether "heavy water" is used instead of helium in their manufacture, (3) the type of container in which the atom of uranium is split, and (4) the probable reaction of the people of the United States if Germany used the explosive power obtained through the splitting of the uranium atom.

This information is being made available to you as possibly indicating the degree to which the Germans have progressed in the development of atomic explosives. There are two other recent developments of possible interest in this connection. The first of these is that the Germans have recently made numerous inquiries of other espionage agents controlled by this Bureau concerning the exact size, number of employees, and location of various armament plants in the United States. For example, the following inquiry was received from Germany by a double agent controlled by this Bureau:

"OF GREAT INTEREST IS SIZE, FLOOR AREA, TOTAL EMPLOYEES
OF BELL, BOEING, BREWER, BRIGGS, BUDD, CHRYSLER, CON-
SOLIDATED VULTEE, CURTISS WRIGHT AIRPLANE DIVISION,
DOUGLAS, EASTERN, FISHER BODY, FORD, GOODYEAR, GRUMMAN,
HIGGINS, HUDSON, KAISER FACTORIES. CONTINUATION FOLLOWS."

The continuation of the above message has not as yet been received.

DECLASSIFIED
E.O. 11652, Sec. 5(2)(2)
Justice Dept. Letter, 9-21-72
By RHP, NLR, Date Aug 2, 1973
The second recent development of interest is the receipt of an inquiry from the Germans through a controlled double agent channel indicating that the Germans are desirous of determining the extent of off-shore coastal protection on the Atlantic seaboard of the United States and particularly as to any areas where this protection may have been curtailed.

With expressions of my highest esteem,

Sincerely yours,

Edgar
April 24, 1945.

Dear Mr. President:

I think it is very important that I should have a talk with you as soon as possible on a highly secret matter.

I mentioned it to you shortly after you took office but have not urged it since on account of the pressure you have been under. It, however, has such a bearing on our present foreign relations and has such an important effect upon all my thinking in this field that I think you ought to know about it without much further delay.

Faithfully yours,

[Signature]

Secretary of War.

[Signature]

The President,
The White House.
WAR DEPARTMENT
Washington

18 July 1945

MEMORANDUM FOR THE SECRETARY OF WAR

SUBJECT: The Test

1. This is not a concise, formal military report but an attempt to recite what I would have told you if you had been here on my return from New Mexico.

2. At 0530, 16 July 1945, in a remote section of the Alamogordo Air Base, New Mexico, the first full scale test was made of the implosion type atomic fission bomb. For the first time in history there was a nuclear explosion. And what an explosion!

3. The light from the explosion was seen clearly at Albequerque, Santa Fe, Silver City, El Paso and other points generally to about 180 miles away. The sound was heard to the same distance in a few instances but generally to about 100 miles. Only a few windows were broken although was some 125 miles.

4. One-half mile from the explosion there was a massive steel test cylinder weighing 220 tons. This is comparable to a steel building bay that would be found in typical 15 or 20 story skyscraper or in warehouse construction. The blast tore the tower from its foundations, twisted it, ripped it apart and left it flat on the ground. I no longer consider the Pentagon a safe shelter from such a bomb.

5. The cloud traveled to a great height in the form of a ball, then mushroomed, then changed into a long trailing chimney-shaped column and finally was sent in several directions by the variable winds in different elevations.
This is the place I told Stalin about the Atom Bomb which was exploded July 16, 1945 in New Mexico. He didn't realize what I was talking about!
Part I - Psychological Warfare

1. Below is a copy of the first leaflet (A-11) which was dropped on Japanese cities in conjunction with the Atomic Bomb.

2. A translation of the above leaflet follows:

TO THE JAPANESE PEOPLE:

"America asks that you take immediate heed of what we say on this leaflet.

"We are in possession of the most destructive explosive ever devised by man. A single one of our newly developed atomic bombs is actually the equivalent in explosive power to what 20,000 of our giant B-29's can carry on a single mission. This awful fact is one for you to ponder and we solemnly assure you it is grimly accurate.

"We have just begun to use this weapon against your homeland. If you still have any doubt, make inquiry as to what happened to Hiroshima when just one atomic bomb fell on that city.

"Before using this bomb to destroy every resource of the military to which they are prolonging this useless war, we ask that you now petition the Emperor to end the war. Our President has outlined for you the thirteen consequences of an honorable surrender. We urge that you accept these consequences and begin the work of building a new, better, and peace-loving Japan.

"You should take steps now to cease military resistance. Otherwise, we shall resolutely employ this bomb and all other superior weapons to promptly and forcefully end the war.

EVACUATE YOUR CITIES

3. Below is a copy of the second leaflet (A-12) which was dropped on Japanese cities in conjunction with the Atomic Bomb.
August 11, 1945

My dear Mr. Cavert:

I appreciated very much your telegram of August ninth.

Nobody is more disturbed over the use of Atomic bombs than I am but I was greatly disturbed over the unwarranted attack by the Japanese on Pearl Harbor and their murder of our prisoners of war. The only language they seem to understand is the one we have been using to bombard them.

When you have to deal with a beast you have to treat him as a beast. It is most regrettable but nevertheless true.

Sincerely yours,

HARRY S. TRUMAN

Mr. Samuel McCrea Cavert
General Secretary
Federal Council of
The Churches of Christ in America
New York City, New York