

# Would you have dropped the nuclear bomb?

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## Task description

In this activity you will play a role play about the Manhattan project. You will be placed in groups in which each of you play a particular real historical person who was somehow involved with the development of the first nuclear bomb. The task of the group is to discuss various issues concerning the war between Japan and USA in the 1940s, and the usage of the nuclear bomb. These discussions must lead to the group giving advice to President Truman. Each of you will have to have an area of expertise. The player who plays Robert Oppenheimer, for example, must present some of the theory behind the nuclear bomb, while others must present information about the war in Japan.

After being assigned a role, you will have to do some research on your character and on the area of expertise of that character. During your research, you should work in research groups where you can work together with other persons from other groups playing similar characters. Afterwards you will be ready to play the role play. The role play has two rounds – each lasts 45 minutes. And in each round a series of playing and discussion cards will be played by the person playing the Presidential aide. On the following pages are some materials for you which will help you through the role play. Remember: When you play a role play it is important to have an idea about the personality of your character, and you should always “stay in character” – i.e. say and do things only as you think your character would say and do things.

## Research

You can use all means necessary to conduct your research on your character and his/her area of expertise. Look again in your history and/or physics books, go to the library to find further information, ask your teacher for advice, and visit the internet. Below are some useful links:

<http://www.hiroshima-remembered.com>

<http://news.bbc.co.uk/onthisday/hi/dates/stories/august/6/>

[http://pbskids.org/wayback/prez/secrets/president\\_33.html](http://pbskids.org/wayback/prez/secrets/president_33.html)

<http://www.pbs.org/wgbh/amex/truman/psources/>

<http://www.dannen.com/>

<http://www.doug-long.com/>

<http://www.exploratorium.edu/doctoratomic/>

[http://www.unm.edu/~abqteach/atomicamerica/atomic\\_america\\_cover.htm](http://www.unm.edu/~abqteach/atomicamerica/atomic_america_cover.htm)

<http://www.atomicmuseum.com/>

[http://en.wikipedia.org/wiki/Main\\_Page](http://en.wikipedia.org/wiki/Main_Page)

**On the following pages you will find some information as well...**

## SECRETARY OF WAR HENRY S. STIMSON

*You participate in this meeting because of your position as secretary of war and because you in actual fact will be the one who decides whether or not USA will drop the bomb.*



**Your history is quite short:** In 1945 you are 48 years of age. You were born on September 21<sup>st</sup> in 1897 in New York. You are a law school graduate, and were appointed secretary of war as early as 1911 under President William Howard Taft.

**Here is a guess on how a typical day of yours would look like:** You hold lots of meetings. Among others, you report to President Harry S. Truman on the atom bomb project. You refrain from telling him every detail, and stick to the essentials. (Harry Truman was appointed President on April 12<sup>th</sup> 1945 when the former President Franklin D. Roosevelt died. Truman had no prior knowledge of the atom bomb project.) You also meet with your military staff in order to gain information about the situation in Japan. In the meantime you are writing a speech which addresses the American citizens. It is this speech which Truman is supposed to deliver on radio broadcast if USA chooses to drop the bomb.

**What is your kind of personality?:** You are a thoughtful man. You once said: “The only way to make a man trustworthy is to trust him”. You have said that the atom bomb project was sort of a race between the destructions humans can perform technically, on the one hand, and the moral and psychological questions we can appraise. You are very intelligent. But you hold a bit of a narrow-minded image of the world, and you have an unshakeable trust in that you are correct. You are polite, and you hold the opinion that the power of USA after all has its limits.

**What do you know about the bomb?:** You have an in-depth knowledge of the bomb. You often converse with General Groves in order to keep yourself updated about when the production of the bomb is finished.

**What is your opinion of the bomb?:** You hold several concerns:

- USA is the first nation to develop the bomb. But sooner or later other nations will follow – large and small.
- Should USA share its knowledge about the bomb, and on what conditions? You lean towards the idea of sharing knowledge.
- You think USA has a moral obligation, and that the nation will be responsible for the catastrophes following the usage of the bomb.

You have previously tried to end the war without the use of the bomb. You suggested that the allied powers should let Japan keep their emperor, if they surrendered. You think the emperor is the sole person capable of persuading Japan to surrender.

You think that your main goal is to end the war as victorious and with the least possible losses from the army you have helped building. In light of this task, you think that no-one in your position and with your responsibility could avoid using the bomb. How else should one be able to look ones fellows in the eyes?

**What are your relations to the other roles?:** You often talk with General Groves and President Truman. You advice the President, and keep yourself updated on the development of the atom bomb.

**Suggestions on how to play the role:** You are a calm person. You talk a lot about the many American soldiers who lost their lives in the war against Japan. The death toll is at least 400.000. You are eager to bring the war to an end. You insist on using the bomb in the war against Japan. This is why you are eager to get the researchers to send a clear signal of when the bomb is finished. Your arguments include that incendiary bombs could be as destructive as a nuclear bomb, but that it would require much more incendiary bombs.

Among other things, you must present your opinions on the bomb to the others in the group. Also, in cooperation with the other politicians, you must explain

- The world situation and the situation of the war against Japan.
- Why the war against Japan poses such a difficulty for the Americans
- How close Japan is to surrendering

## GENERAL LESLIE RICHARD GROVES

*You participate in this meeting because you are the ranking military chief of the Manhattan project.*

**Your history is quite short:** In 1945 you are 49 years of age. You are tall and sturdily build. You are born on August 17<sup>th</sup> in 1896 in Albany, New York. In 1918 you graduated as an engineer. In 1922 you were married to your girlfriend of many years: Grace Hulbert Wilson Groves. You are the father of a son and a daughter and later you became grandfather of seven grandchildren.



**Here is a guess on how a typical day of yours would look like:** You are the person in charge of more than 100,000 employees and you are quite satisfied being in that position. You are an early riser, and begin your day with a frisk exercise program. You spend a lot of time visiting the different workshops and laboratories in order to supervise the progress. You are determined that the bomb must be finished till July/August 1945. The researches must simply speed up and deal with the problems. You often talk with Robert Oppenheimer. You push him to speed up the progress. You also often talk with Stimson who presses you for information on when the bomb can be finished.

**What is your kind of personality?:** You have a will of steel. You are proud of your nation and will fight for it. You are somewhat strict, and steer towards the best solution. You run the Manhattan project in a strict manner. You expect that your employees follow your command without asking critical questions. You are extremely careful to keep the Manhattan project a secret. At one point, three young men died in an explosion on the fleet station in Philadelphia. And you forbid that their parents are informed about just why they died. You don't really care what others think of you.

**What do you know about the bomb?:** You belong to the group of people who know most about the bomb. You have the overview. You know about the individual parts of the bomb, and you know how everything is to be sailed to Japan, where the bomb is to be assembled and put to use. At one point you will forbid that scientists talk to each other about what they are doing. You consider it too dangerous if the researchers know too much. But the researchers demand to talk to each other, because they feel that good ideas emanate from interactions between scientists. In this case you must bow to the pressure. Near the end of 1944 you inform the President that you definitely can present the first atom bomb by summer 1945.

**What is your opinion of the bomb?:** You think the bomb should be used as soon as possible. You always thought that the atom bomb will be the decisive element which ends the war. You also think the bomb will save the lives of thousands of American soldiers.

**What are your relations to the other roles?:** You don't care much for researchers who interferes in politics or have a critical attitude towards the usage of the atom bomb. You do, however, like Robert Oppenheimer. You know that the young Oppenheimer supported some communist ideas. And the American government doesn't exactly love communists. But you have convinced the politicians to disregard this fact. Oppenheimer is just too important for the project.

**Suggestions on how to play the role:** You're the kind of person who likes to be in charge. You expect people to agree with you. You are serious and not very cheerful. You do not like to discuss problems about the bomb. It just has to be finished and put to use. You sometimes hit you fist in the table to put emphasis on your words.

In cooperation with the scientists you have to explain to the others in the group in what state of development the bomb is at this time, how the bomb works, why it delivers such a massive explosion, and how the test detonations worked on July 17<sup>th</sup>.

## NUCLEAR PHYSICIST ROBERT OPPENHEIMER

*You participate in this meeting because you are the ranking scientific chief of the Manhattan project.*



**Your history is quite short:** You are born in 1904 in New York. So in 1945 you are 41 years old. As a child you were shy. You collected stamps and butterflies. In 1940 you married Kitty Oppenheimer, and you got two children: Peter and Katherine. You are an American Jude. You strongly distance yourself from fascism. You are a political left-winger and that is a fact with which the American military is not happy with. But the military ranking chief General Groves chose to disregard that fact because you are so intellectually gifted. You are very thin.

**Here is a guess on how a typical day of yours would look like:** You are a theoretical physicist. You spend most of your time with your colleagues in front of a blackboard. Here you and the other researchers can discuss while writing equations and formulas on the blackboard. Part of your work is to calculate what happens within the atoms. You are responsible for calculating how to construct an atom bomb. How to make it explode on time? How much explosive material is required in order to make the bomb sufficiently powerful? How heavy a bomb can be lifted by an airplane? What is the risk involved flying with the bomb? How can you obtain enough Uranium-235? How can you produce Plutonium-238 from Uranium-235? You are not alone in these calculations, but you see to it that someone in your team does the calculating. You hold numerous meetings with General Groves. You all work under heavy pressure in order to finish the bomb.

**What is your kind of personality?:** According to the people who know you, you are a genius. You think extremely fast, and you have sincere interests in the researchers who work on the project. You are a natural leader. You set demands to your workplace. When you were in the process of being hired as scientific leader, General Groves took you to see the location of your laboratories. But you stated that the view was too boring, so you suggested another site namely Los Alamos. You got your way.

**What do you know about the bomb?:** You are one of the people who know the most about the nuclear bomb. You are the scientific leader of the Manhattan Project.

**What is your opinion of the bomb?:** You definitely have your opinion about the bomb, but you try to avoid airing your opinions in this matter. However, you do say that you do not believe that a mere demonstration of the bomb will have an effect on Japan.

**What are your relations to the other roles?:** You work well with General Groves. You seem to be one of the few scientists he can socialize with. You spend a lot of time and energy trying to convince him that the other scientists are necessary for the project, and that they are highly intelligent persons.

Together with the other scientists you must present how far along the development of the bomb is. In particular, you must focus on why there are two types of nuclear bombs and how they work.

## Letter from the President

### Notice to meeting in the White House

July 25<sup>th</sup>, 1945

For long we wanted to end the war in Japan. Since the Japanese attacks on our fleet station Pearl Harbor in 1941, more than 400,000 of this nation's citizens have died in this war. I wish to end this bloodshed as soon as possible. This is why USA has planned two massive invasions of two large provinces in Japan: Kyushu will be invaded on November 1<sup>st</sup> 1945, and Honshu will be invaded on March 1<sup>st</sup> 1946. But the question is, whether there are alternative solutions which will prove to be more effective?

As you already know, USA is very close to have developed a bomb which is thousand times more powerful than the bombs we know of today. You also know that some days ago, in utmost secrecy, a particularly successful test blast was conducted. As you probably also know, this bomb should originally have been used against our main enemy Germany. But with Hitler's death and Germany's capitulation on May 8<sup>th</sup> we now have the possibility to use the bomb against another serious enemy – Japan.

But the question remains, whether this is the right decision? This is why I summon you to form a group of high-ranking personas in politics, military and research. It is my hope and wish that this group can advise me in this difficult situation.



*Yours truly*  
*President Truman*