

Name: _____

Date: _____

The Manhattan Project

In 1934, German scientists discovered nuclear fission, the splitting of an atom of uranium into two elements. If fission became a chain reaction, the energy of the nucleus of the uranium atom might be released. A very large number of atoms split very quickly might result in a massive explosion.

Five years later, Albert Einstein wrote a letter to President Roosevelt describing the potential power of a nuclear bomb. Einstein was a German-born Jewish scientist who left Europe shortly before Hitler came to power. Einstein opposed the use of nuclear weapons, but he feared what might happen to the world if Germany discovered the technology before America.



J. Robert Oppenheimer

American military leaders decided they needed to build a laboratory to create a nuclear weapon. They searched for a location at least 200 miles from a coastline or international border. The site needed to be sparsely populated because an accident might cause horrendous damage. They settled on a secluded school for boys in the desert land of Los Alamos, New Mexico. Robert Oppenheimer led a group of almost 6000 scientists in what became known as the top secret Manhattan Project.

The scientists recruited to work on the Manhattan Project, and their families, had to work in complete secrecy. Their drivers' licenses listed only numbers, not names. Even relatives

could not know where the scientists were working. All of their mail was screened to ensure they said nothing to give away their location. Photographs could not include anything that might identify the landscape of New Mexico. The American government had to ensure that the Axis Powers had no idea what was happening at the isolated site in New Mexico.

Many of the scientists working at Los Alamos were Jewish refugees from Germany. Edward Teller left Germany for America in 1933. Otto Frisch and Felix Bloch were also German Jews who were instrumental in creating the bomb. Enrico Fermi was married to a Jewish woman. He left Italy at about the same time to escape anti-Semitism. Ant-Semitism is the hatred or persecution of Jews. If Jewish scientists had been allowed to stay in Germany, Hitler might have gotten the bomb before America.

Nobody was certain what would happen once the nuclear chain reaction began. One scientist believed the entire state of New Mexico would be incinerated. The governor of New Mexico was alerted that an evacuation of the state might be necessary.

The scientists were ready to test their work at sunrise on a summer morning in 1945. The awakening sky filled with light brighter than anything seen before on earth. Early risers more than 150 miles away heard the unimaginable roar of the bomb. Oppenheimer later remarked, "We knew the world would never be the same."

Answer in complete sentences

1. What is nuclear fission?

*2. Why did Albert Einstein describe the potential of a nuclear bomb to Franklin Roosevelt in spite of his opposition to nuclear weapons?

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Fill in the Blanks

The G_____ were the first to discover the potential of *n_____ energy. A G_____ born J_____ scientist named Albert E_____ warned American President F_____ Roosevelt of the *c__n__e__u__n__e__ of Germany creating a nuclear b_____.

The American m_____ decided to attempt to build a n__c__e__r weapon. They began working s_____ on the "M_____ Project" at a secluded location in N_____. M_____.

The first testing on an a_____ occurred on a summer morning in 19_____. Once scientist believed the test would i_____ the entire s_____. The test produced a *n__i__e heard more than 150 miles away, and light b_____ than anything ever seen before on e_____. The leader of the M_____ Project, J. Robert O_____, later remarked, "We k_____ the w_____ would n_____ be the s_____ again."

Answer in complete sentences

*3. Why do you think the military insisted that the laboratory that housed the Manhattan Project in a sparsely populated area more than 200 miles from Canada, Mexico, or the shoreline?

*4. Why do you think many American scientists were willing to subject themselves and their families to secrecy and loss of privacy in order to work on the Manhattan Project?

*5. Why was the governor of New Mexico alerted that an evacuation of the state might be necessary?

*6. What did Robert Oppenheimer mean when he said, "We knew the world would never be the same again?" (You do not have to rewrite the quote in your response.)

