

A black and white photograph of a massive mushroom cloud from the atomic bombing of Nagasaki on August 9, 1945. The cloud is thick and billowing, with a dark, dense column rising from the ground and a large, white, cloud-like head at the top. The background is a hazy, overcast sky.

What the Heck is the Manhattan Project??

for children

By Amy



At the beginning of the war in 1939, scientists around the world found out that Germany was beginning its own experiments to develop an atomic bomb.

The Manhattan Project was the code name for a U.S. government program that supported scientists that were trying to create an atomic bomb during World War II.

Many scientists from Europe had already fled to the U.S., and they brought the knowledge of the atomic bomb with them. German scientist Albert Einstein and Italian scientist Enrico Fermi wrote a letter to President Roosevelt, warning him about the dangers of Germany having an atomic bomb, and asking him to start a research team to create a similar weapon.

An aerial photograph of a town, likely in the mid-20th century. In the foreground, there is a large, organized industrial or research complex with several large buildings, parking lots filled with cars, and a road. The complex is surrounded by trees and greenery. In the background, there are rolling hills and a river or stream. The overall scene suggests a significant development or project in a rural or semi-rural area.

The Manhattan Project spanned across Canada and the United States, but the main three research and production facilities were...

Oak Ridge, Tennessee



Oak Ridge, Tennessee Hanford, Washington

An aerial photograph of an industrial facility, likely a nuclear reactor or chemical plant. The image shows a complex of buildings, roads, and large storage tanks. A tall, slender smokestack is visible on the right side. The facility is situated near a body of water, with a shoreline visible in the upper right. The foreground shows a dirt road and some vegetation. The overall scene is industrial and somewhat desolate.

An aerial photograph of a large industrial or military complex, likely a nuclear facility. The image shows several large, rectangular buildings, some with flat roofs and others with more complex structures. There are numerous roads, parking lots, and areas with trees. The overall scene is a mix of built-up areas and natural landscape. The text is overlaid on the left side of the image, listing three locations: Oak Ridge, Tennessee; Hanford, Washington; and Los Alamos, New Mexico.

Oak Ridge, Tennessee
Hanford, Washington
Los Alamos, New Mexico



was selected as the site for Project Y,
the code name for the main atomic
bomb scientific laboratory of the
~~Mesa~~ **Los Alamos, New Mexico**

The most famous scientist who worked on the Manhattan project was J. Robert Oppenheimer, who ran the main laboratory in Los Alamos, New Mexico. Other scientists on the team were Enrico Fermi, Otto Frisch, Klaus Fuchs, Niels Bohr, and Edward Teller.



The Manhattan Project started on May 12, 1942, when President Roosevelt signed an order creating a top secret project to develop the nuclear weapon. It was disbanded on August 15, 1947.



The program was kept top secret so that enemy spies would not learn about what the United States was doing. Most of the employees had no idea what they were working on.





Despite being an ally during WW2, the Soviet Union launched an espionage effort and a Soviet spy ring was established in the 1940s to uncover the military secrets of the United States

SIX PRINCIPALS IN THE RUSSIAN



There were spies in many departments of the Manhattan Project were giving information to the Soviet Union.

CHIEF AGENT: Anatoli Yakovlev, a Russian spy who provided information to the Soviet Union and sent the data to Moscow.

COORDINATOR: Julius Rosenberg, who coordinated the work of the spies and what information was required.

ACCOMPLICE: Mrs. Ethel Rosenberg, who collected information and typed up the data collected.

SOURCE: Klaus Fuchs, who provided material on search and on

Two types of atomic bomb were developed during WW2. The first type used the gun-type, where one piece of uranium was fired at another piece to produce a chain reaction and then an atomic explosion.

The second bomb was made as an implosion-type weapon. That means that a sphere of explosive plutonium was placed in the middle of the bomb, and the sphere was squeezed inside of the bomb until it exploded.



"The Gadget" was the code name given to the first ever atomic bomb that was made and tested in New Mexico on July 16, 1945.

The first atomic bomb, "Little Boy", was dropped on the city of Hiroshima on August 6, 1945. 60,000 people died instantly, and an estimated 200,000 died later because of burns and radiation exposure.

The second atomic bomb, "Fat Man", was dropped on the city of Nagasaki three days later, on August 9, 1945. With both bombs, the majority of the city was completely destroyed, and thousands of people died instantly.

The U.S. decision to bomb Hiroshima and Nagasaki did lead to a quick end to World War Two, but in doing so, destroyed people, cities, families, and future generations to come.

The bombs also led to the atomic age and determined how the next war, the Cold War, would be fought.

As well as the immediate effects of the atomic bombs, there are also extremely bad long term effects. Direct exposure to the chemicals used in the atom bombs, uranium and plutonium, can cause immediate sickness and death, but also a higher chance of cancer and birth defects.