Hiroshima and Nagasaki

Atomic Bombs During
World War II
The Manhattan Project was a top-secret project to develop the Atom Bomb. It was headquartered in Los Alamos, New Mexico and began in 1939. The work of the scientists resulted in the first nuclear explosion on July 16, 1945. The head of the project, Robert Oppenheimer, later recalled that while witnessing the explosion he thought of a verse from the Hindu text, the Bhagavad Gita:

"If the radiance of a thousand suns were to burst at once into the sky, that would be like the splendor of the mighty one..."

However, another verse that he remembered stuck in his mind: "I am become death, the destroyer of worlds"

However, at the time he simply exclaimed, "It worked." News of the successful test was rushed to President Harry S. Truman, who could use it as leverage at the upcoming Potsdam Conference on the fate of post-war Europe.

The first nuclear test, called “Trinity.”
President Truman’s Decision

- President Truman’s advisors told him it could cost half a million American lives to invade Japan in 1945 and win the war, so he had to make the choice of whether to use the devastating new weapon which would bring the war to the quickest possible end. After warning the Japanese they could expect a “rain of ruin from the air” and receiving no reply, Truman made the decision to drop the bomb. This has become one of the most debated decisions in history.

President Harry Truman (1883-1972). President from 1945 to 1953.
The atomic bomb dropped on the city of Hiroshima was code named Little Boy. Colonel Tibbets flew the plane that dropped the bomb, the Enola Gay, and it lifted off the runway at 2:45 A.M. August 6, 1945. Navy weapons expert Captain William Parsons armed the bomb in flight, as it had been deemed too risky to arm before take off in case of accident, possibly wiping out the entire base.

At 8:05am Enola Gay was coming in at 30,800 ft, followed by the observer planes, and less than 50 miles from Hiroshima. Major Thomas Ferebee, the bombardier, took up position in the plexiglass nose to fix the crosswire of his sight on the city's T-shaped Aioi Bridge. Through the shimmering haze, Ferebee made out the bridge and locked the cross hairs of his bombsight. The final fifteen seconds to bomb drop were automatic. At seventeen seconds past 8:15, the bomb bay doors opened and "Little Boy" plummeted free.
Hiroshima: Day of Fire

- Effects of the Bombing:
  - Ground Temperature: 7,000 degrees F
  - Hurricane Force Winds: 980 miles per hour
  - Energy Released: 20,000 tons of TNT
  - Buildings Destroyed: 62,000 buildings
  - Killed Immediately: 70,000 people
  - Dead by the End of 1945: 140,000
  - Total Deaths Related to A-bomb: 200,000
Destruction

- “My body seemed all black, everything seemed dark, dark all over.. Then I thought, ‘The world is ending.’ ”
  – An Atomic Bomb Survivor

Atomic Bomb Cloud Over Hiroshima

The foreground shows the ruins of the Hiroshima Gas Company Building (800 feet from the hypocenter). In the center are the ruins of the Honkawa Elementary School.
A Japanese Journalist:

Within a few seconds the thousands of people in the streets and the gardens in the center of the town were scorched by a wave of searing heat. Many were killed instantly, others lay writhing on the ground, screaming in agony from the intolerable pain of their burns. Everything standing upright in the way of the blast, walls, houses, factories, and other buildings, was annihilated.
"The patient's skin is burned in a pattern corresponding to the dark patterns of a kimono worn at the time of the explosion."
With no reply from the Japanese, three days later, on August 9, 1945, a second atomic bomb was dropped on Nagasaki.
Nagasaki: Round Two

- Effects of the Bombing:
  - Energy Released: 21,000 tons of TNT
  - Killed Immediately: 40,000 people
  - Dead by the End of 1945: 70,000
  - Total Deaths Related to A-bomb: 140,000
Nagasaki: People and Places
The Japanese surrendered to General Douglass MacArthur on September 2, 1945, and ended World War II.
Other Episodes of Destruction

Firebombing of Tokyo 1945

- US drops 2,000 tons of incendiary bombs
- Almost 16 square miles in and around the Japanese capital were incinerated
- Between 80,000 and 130,000 Japanese civilians were killed
- The worst single firestorm in recorded history.

Firebombing of Dresden 1945

- Killed around 135,000 people
- The single most destructive bombing of the war
- Germany already on the verge of surrender