"When you see something that is technically sweet, you go ahead and do it and you argue about what to do about it only after you have had your technical success. That was the case with the …..

Atomic Bomb

J. Robert Oppenheimer

The Atomic Bomb

- Manhattan Project
- J. Robert Oppenheimer
- Project Trinity
- Little Boy
- Fat Man
- Enola Gay

Manhattan Project

- Code name for the atomic program
  - $2-billion effort
- Received high priority by late 1941
  - Fear of Germany
  - Atomic power before the US.
- Hans Bethe and Edward Teller
  - Most prominent physicists
- Am. Scientists & Eur. Refugees
- Uranium 235 & Plutonium 239

Manhattan Project

- Facilities
  - Oak Ridge, Tenn.
  - Hanford, Wash.
  - Univ. of Chicago
  - Los Alamos
- Participants
  - J. Robert Oppenheimer
  - Enrico Fermi
  - Leslie Graves

J. Robert Oppenheimer

- Director
  - Atomic Projects at Los Alamos
- Sat on Target Committee
  - Compiled List of Prospective Targets
- Thought Japan Would Not Surrender
  - Atomic Display Wouldn’t Influence Leaders
- Wanted to Use the Bombs on Cities
- Favored Fat Man Over Little Boy
### Project Trinity
- Ground Zero
- First Atomic bomb test operation
  - Plutonium Device
- July 16, 1945
- Alamogordo bombing range
  - 40 miles west of Ocurro, NM
- Detonated on 100 foot tower

### Little Boy
- Uranium Bomb
- Fully assembled on Tiniam by July 31
- Bomb that was dropped over Hiroshima
  - August 6, 1945
- Released at 31,500 feet
- Detonated at 2,000 feet
  - max. blast effect & min. radiation dispersal
- Col. Tibbets was the pilot
  - Accompanied by two other B-29

### Fat Man
- Plutonium bomb
- Extremely complicated mechanism
- Convince Japan of US atomic power
- Loaded onto B-29 named Bock’s Car
- Major Sweeney was the pilot
- Original target was Kokura
  - scratched because of dense smoke
- Dropped on Nagasaki August 9, 1945

### Enola Gay
- American B-29 Bomber
- Dropped Atomic bomb on Hiroshima
  - August 6, 1945 at 8:15 am
  - killed 70,000 people
  - wounded thousands more

### Points to Ponder
- Truman’s Decision
- Hydrogen & Neutron Bomb
- Nuclear Power
  - 3-Mile Island & Chernobyl
  - Love Canal
- Einstein
  - Have you led us astray?

*If nuclear weapons are used in WW III, sticks & stones will be the weapons of WW IV*