



HVL LESSON TITLE:

THE SCIENCE OF THE ATOMIC BOMB

DEVELOPED BY: CHANTAYE SHAW

THE SCIENCE OF THE ATOMIC BOMB

GUIDING QUESTION:

What makes atomic bombs so dangerous and how much damage could they do?

OVERVIEW

Watch the interview from Ted Estridge as he speaks about the Battle in Okinawa and the atomic bombing that followed in Hiroshima.

OBJECTIVES

By the end of the lesson, students will be able to:

- · Identify the isotopes in atomic bombs;
- · Explain nuclear fission; and
- $\boldsymbol{\cdot}$ What are the effects using an atomic bomb in war.



Subject(s):

Math Science



WWII Veteran(s):

Ted Estridge



Duration:

45 minutes

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"There would have been millions killed if we had to invade Japan. I'm just thankful that we didn't have to."

TED ESTRIDGE - WWII VETERAN

OVERVIEW

Watch the interview from Ted Estridge as he speaks about the Battle in Okinawa and the atomic bombing that followed in Hiroshima.

HISTORICAL CONTEXT

The first atomic bomb was used in Hiroshima during World War II. It caused catastrophic damage and loss of lives. However it would have been worse if the U.S. invaded Hiroshima after battling in Okinawa.

OBJECTIVES

By the end of the lesson, students will be able to:

- · Identify the isotopes in atomic bombs;
- · Explain nuclear fission; and
- · What are the effects using an atomic bomb in war.

STANDARDS

CCSS.ELA-LITERACY.RST.6-8.7

Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).

CCSS.ELA-LITERACY.RST.6-8.9

Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.

SEP Middle School 6-8

Develop and/or use a model to predict and/or describe phenomena.

NSTA MS-PS1-2

Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred.

MATERIALS & DOCUMENTS

TED ESTRIDGE VIDEO:

Surviving the Battle of Okinawa

https://www.youtube.com/watch?v=WqI01I9nnZY

DOCUMENT A:

"Ted Estridge the Soldier" graphic organizer

DOCUMENT B: Lab Sheet

DOCUMENT C: Damage after Atomic Bomb graphic

COMPUTER WITH INTERNET ACCESS

PROCEDURES

ACTIVITY 01

- · Show the video of Ted Estridge.
- Have students fill in the graphic organizer about Mr. Estridge.

ACTIVITY 02

- Students will demonstrate the drop of an atomic bomb and determine how much damage it can cause. You will need a large area outside.
- · You will need the following items: two large water balloons filled with water (color the water for a really fun time).

ACTIVITY 03

· Students will research possible damage with battle.

FOR MORE INFORMATION:

email: info@honoringveteranlegacies.org