



AMERICAN  
LITERATURE

# Hiroshima

from the Esri GeoInquiries™ collection for American Literature

Target audience – American literature learners

Time required – 15 minutes

## Activity

Learn about the Hiroshima explosion and how the height of the explosion and its effects are linked. Book: *Hiroshima* by John Hersey

## Standards

**CCSS: ELA-LITERACY.RL.9-10.6.** Analyze a particular point of view or cultural experience reflected in a work of literature from outside the United States, drawing on a wide reading of world literature.

**CCSS: ELA-LITERACY.RI.9-10.7.** Analyze various accounts of a subject told in different mediums (for example, a person's life story in both print and multimedia), determining which details are emphasized in each account.

## Learning Outcomes

- Students will analyze the effects of the explosion on buildings and people.
- Students will analyze the effects of the explosion on the environment.

Map URL: <http://esriurl.com/litGeoInquiry11>

## ? Ask

### What started the fight?

- December 7, 1941, is “a date which will live in infamy.”
- Click the link above to launch the map.
- Click the button, Bookmarks. Select Pearl Harbor.
- Read aloud: “You can see the first two waves of bombing attacks.”
- Click the bookmark, Distance To Japan.
- Click the button, Measure. Set to distance. Set units of miles. *[See the Use the Measure Tool tip on page 2 for details.] [Approximately 4,200 miles]*
- ? Why does the measure line curve? *[It mimics the curve of the earth.]*

## ↓ Acquire

### Where did the bomb testing begin?

- Read aloud: “The U.S. began to plan strategies against Japan.”
- Click the bookmark, Nuclear Age Begins.
- Click the button, Basemap. Choose Imagery.
- Click the Trinity site dot and read the summary aloud.
- ? Why did this place make a perfect spot to test a bomb? *[Desert terrain and no population]*

## 🔍 Explore

### Why Hiroshima?

- Click the bookmark, Post Pearl Harbor Defense.
- Click the Play button (bottom of map) to see where the allied forces focused their efforts.
- ? What do you notice about the areas bombed? *[None are on Japan's main island of Honshu.]*
- With the Details button depressed, click the button, Content.
- Deselect the checkbox to the left of the layer name, Post Pearl Harbor Attack.

more ►

## Analyze

### How were structures affected?

- Read aloud: “We may assume that the most damage is done when a bomb detonates on the ground, but with a nuclear bomb, an air detonation is more destructive.”
- Select the bookmark, Ground Zero.
- Turn on the Hiroshima-Blast Effects layer to see the blast’s effects on structures when the bomb detonated at 580 meters (about 1,900 feet) above the city.
- In the Details pane, click the button, Show Map Legend. See the details of the rings.
- ? When you see the destructive force, why do you believe this attack put an end to the war? *[Answers will vary but may include: It was not a military installation. This was an urban, well-populated area.]*

## Act

### What happened to the people?

- Turn off the layer, Hiroshima – Blast Effects.
- Turn on the layer, Hiroshima Thermal Radiation Effects.
- Examine the thermal radiation effects.
- ? What seems different about the effect on people versus structures? *[The worst effects reach further from the center.]*
- Turn off the layer, Thermal Radiation Effects.
- Turn on the layers, 2km Detonation Blast Effects and Thermal Radiation Effects. Examine them.
- ? What is the difference in the blast and radiation effects if detonated at 2 kilometers (about 6,600 feet) instead of the 580 meters? *[The blast effect would be 10 times worse; radiation effects would be 20 times worse.]*

### USE THE MEASURE TOOL

- Click Measure, select the Distance button, and from the drop-down list, choose a unit of measurement.
- On the map, click once to start the measurement, click again to change direction, and double-click to stop measuring.
- Hint: Position the area of interest on the map so that it is not obscured by the Measure window.

### TURN A MAP LAYER ON AND OFF

- Make sure that the Details pane is selected, and click Show Contents Of Map.
- To show individual map layers, select the check boxes next to the layer names.
- Hint: If a map layer name is light gray, zoom in or out on the map until the layer name is black. The layer can now be turned on.

## Next Steps

**DID YOU KNOW?** ArcGIS Online is a mapping platform freely available to public, private, and home schools. A school subscription provides additional security, privacy, and content features. Learn more about ArcGIS Online and how to get a school subscription at <http://www.esri.com/schools>.

**THEN TRY THIS...**

- Explore other statistics in the data tables and symbolize other factors.
- Explore the An Infamous Day story map at <http://esriurl.com/Geo41201>.

## TEXT REFERENCES

This GIS map has been cross-referenced to material in the following novel.

- *Hiroshima* by John Hersey