

A satellite image of the Arctic region, showing the ice-covered landmasses and surrounding waters. The image is framed by a white title bar at the top.

# NUCLEAR WEAPONS

Student

Language Arts: Core 7

10 Dec. 2021

*Image Courtesy of The New York Times*

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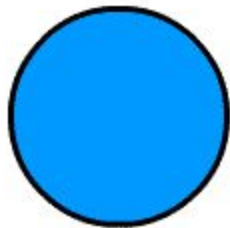
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*A B61 nuclear bomb*

*Image Courtesy of Dave Bezaire*

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*Courtesy of Pilar Newton*

*The Majestic Planet Earth*

# WHAT IS NUCLEAR WINTER?



*A depiction of the effects of nuclear winter*

- Blocked-out sun (Merriam-Webster)
- Smoke “clogs” atmosphere
- India vs Pakistan
  - ~100 weapons each
  - 5M tons of smoke (Alan Robock)
- Global Famine (Action Against Hunger)
- 0.5% weapons risks 2B (International Physicians for the Prevention of Nuclear War)
- Rapid marine extinction (ScienceDaily)
- Ocean acidification
- Temperature drops



What if the U.S. and Russia had a war?



*Image Courtesy of Vladimir Manyukhin*

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# ENVIRONMENTAL PRODUCTION COST

- Uranium and Plutonium
- 1948-1996; \$165.5B element supply (The Brookings Institution)
- Radioactive mixture
- >100M gallons liquid waste (EPA)
- \$4.5B annual stockpile stewardship (Schwartz)



*Photo Courtesy of Scholastic*

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# PAST DISASTERS

- 1986 Chernobyl, Ukraine
- 18 mile radius unlivable 150 yr.
- Thyroid cancer epidemic
- Birth defects
- 1957 Kyshtym, Soviet Union
- Kept secret
- Evacuated week later
- Countless radiation-related diseases

(History)



*Photo Courtesy of Flickr*

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# PROGRESS TOWARDS A NUCLEAR BAN

- The Treaty on the Non-Proliferation of Nuclear

Weapons (NPT)

- The Treaty on the Prohibition of Nuclear Weapons

(TPNW)

- Neighbors' progress (atomicarchive)

- U.S. Former President Obama (DW)

- Global Zero



*Image Courtesy of Carlton Stoiber*

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# WHAT I HAVE LEARNED...

- Able to recognise:
  - Current Events
  - Causes
  - Alternatives
- Inform w/h public safety
- Climate change
- Marine extinction
- Global famine
- What the government sees
- Science behind
- Nuclear ban possibility



Image Courtesy of Steve Greenberg

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