

## GEOGRAPHY

- **Opportunities**
  - **Video** – What can you do with geography? (3:26)
    - A look into what can you do with Geography, as students around the country prepare for the 2012 National Geographic Bee.
    - <https://www.nationalgeographic.org/media/what-you-can-do-geography/>
  - **Video** – A World of Possibilities is Waiting for You (1:55)
    - Have you ever wondered where things happen? Why do they happen there? How do we find patterns and change them?
    - <https://www.youtube.com/watch?v=kE53zdOGZFM>
- **Geography Awareness Week**
  - **Idea** – Celebrate Geography Awareness Week (multiple)
    - This Geography Awareness Week, gather your friends, family, coworkers, and everyone in between to help you celebrate! Use these activity and event ideas during Geography Awareness Week—and the rest of the year—to show your love for geography.
    - <https://www.nationalgeographic.org/idea/celebrate-geography-awareness-week/>

## GEOSPATIAL TECHNIQUES

- **Maps**
  - **Map** – MapMaker: Latitude and Longitude
    - Lines of latitude and longitude help us navigate and describe the Earth. Explore them with MapMaker, National Geographic's classroom interactive mapping tool.
    - <https://www.nationalgeographic.org/maps/mapmaker-latitude-longitude/>
  - **Map** – MapMaker: Meridians and Parallels
    - The lines that help us describe the Earth.
    - <https://www.nationalgeographic.org/maps/mapmaker-meridians/>
  - **Activity** – Investigating Map Projections (≈50)
    - Students use oranges to investigate the effects of changing a 3-D surface to a 2-D surface. They then examine the distortions of different map projections while comparing land and ocean to its representation on a globe.
    - <https://www.nationalgeographic.org/activity/investigating-map-projections/>
  - **Video** – The Cartographer's Dilemma (2:24)

- Making a flat map of a round planet is a challenge all mapmakers have to deal with. Watch this video to learn why every map projection has some distortion.
    - <https://www.nationalgeographic.org/video/the-cartographers-dilemma/>
  - **Maps** – Selecting a Map Project
    - Cartographers at *National Geographic* discuss how they select an appropriate map projection for the September 2012 issue.
    - <https://www.nationalgeographic.org/media/selecting-map-projection/>
  - **Video** – Mapping the Human Journey (6:54)
    - See how National Geographic teamed up with Jeff Blossom and Paul Salopek to create a map that mirrors some of our ancestors' route from Africa to the southern tip of South America.
    - <https://www.nationalgeographic.org/media/mapping-human-journey/>
  - **Video** – Mapping the Stories of Our Planet (5:52)
    - “Hasn’t the world already been mapped?” Not true! Especially if you ask National Geographic cartographer Debbie Gibbons. We are constantly finding new places and exploring new territory. What we map is constantly changing. You can map populations, transportation systems, forest coverage, and more. With more than 30 years of map making under her belt, join Debbie to discover just what exactly what goes into making maps at National Geographic.
    - <https://www.nationalgeographic.org/media/mapping-stories-our-planet/>
  - **Activity** – Mental Mapping and Perception (≈100)
    - Students rate their desire to live in different states. They use mental maps to explore student perceptions of different areas of the U.S.
    - <https://www.nationalgeographic.org/activity/mental-mapping-and-perception/>
- **GIS**
  - **Map** – GIS
    - Illustration of three data layers on a GIS map.
    - <https://www.nationalgeographic.org/photo/new-gis/>
  - **Video** – Geographic Information Systems (0:44)
    - Time-lapse images created with geographic information systems (GIS) help scientists understand complex natural and human-related processes.
    - <https://www.nationalgeographic.org/media/geographic-information-systems/>
  - **Activity** – Introduction to GIS (≈45)
    - Students discuss GIS and its impacts on our everyday lives. They use ropes or string to simulate GIS technology, and then discuss how GIS helps users with data visualization and analysis.
    - <https://www.nationalgeographic.org/activity/introduction-gis/>
  - **Video** – Geospatial Revolution (multiple segments)

- The Geospatial Revolution examines the world of digital mapping and how it is changing the way we think, behave, and interact.
  - <https://www.nationalgeographic.org/media/geospatial-revolution/>
- Video – Exploring with GIS: Tracking Black Bears (7:48)
  - Wildlife ecologist Rae Wynn-Grant proves you can be a self-professed "city girl" while also pursuing professional passions in the forest. GPS-tracking, modeling natural habitats, and forecasting migratory patterns are all essential for her mission: studying black bears and their behavior around human areas. Rae exercises GIS tools in the Lake Tahoe region where locals—humans and bears alike—are learning how to coexist.
  - <https://www.nationalgeographic.org/video/exploring-gis-tracking-black-bears/>
- Video – Sea to Source: Collecting Geospatial Data (5:40)
  - Jenna Jambeck shows us how using geospatial data can help us solve daily problems, big or small, all around the world.
  - <https://www.nationalgeographic.org/media/sea-source-collecting-geospatial-data/>
- Video – Exploring with GIS: Visualizing a Glacier (5:36)
  - Travel along with Alex Tait, The Geographer at National Geographic, and a team of mappers on an expedition to Mount Everest. They scan using LiDAR and perform detailed photogrammetry of the entire Khumbu Glacier from the South Col all the way down to the toe of the glacier and all of Everest Base Camp—at the highest resolution ever collected at Mount Everest. The maps produced from the data will help scientists better understand the dynamics of the ice and snow on the mountain and how the warming climate is impacting the region.
  - <https://www.nationalgeographic.org/video/exploring-gis-visualizing-glacier/>
- Video – Mapping Change at the Roof of the World (7:00)
  - National Geographic Geographer Alex Tait embarked on a journey to Mount Everest to collect data on the melting ice in the mountain range. Alex Tait and his team hope to provide a safer path to those who live around the mountain and a better understanding of how climate change is affecting their everyday life.
  - <https://www.nationalgeographic.org/media/mapping-change-roof-world/>
- Video – Exploring with GIS: A StoryMap of the Silk Road (4:21)
  - Join journalist and National Geographic Fellow, Paul Salopek, as he follows in our ancestors' footsteps—literally! Paul's 10-year trek on foot follows the path of human migration and aims to tell local stories about our changing world. Story maps from Paul's photos, videos, and writing dispatches help share these stories with the world, like his modern take on the ancient Silk Road. This "road" was a network for goods, people, information, and culture to travel between distant parts of Asia and other

parts of the world. Paul's journey takes him along part of this influential route and shows him how important the area still is for many of the same reasons. Telling stories like these through maps brings us from a global level to the local level and can inspire us all to be more global citizens.

- <https://www.nationalgeographic.org/video/exploring-gis-storymap-silk-road/>

- **Photography**

- **Video** – Creating a Photographic Story of Place (multiple segments)
  - Create your own Story of Place with original photographs you take with Erika Larsen—a National Geographic photographer—as your guide.
  - <https://www.nationalgeographic.org/media/creating-photographic-story-place-erika-larsen/>
- **Video** – Storytelling Through Photography (4:32)
  - Tailyr Irvine is a Salish and Kootenai photographer from the Flathead Reservation in Montana. Her work focuses on amplifying the voices of indigenous communities and breaking down stereotypes about American Indians.
  - <https://www.nationalgeographic.org/media/storytelling-through-photography-tailyr-irvine/>
- **Video** – Storytelling Through Photography (6:42)
  - Hannah is a Filipina photojournalist and National Geographic Explorer. Hannah's photographs expose private moments from the lives of people who are impacted by inequality, poverty, and injustice. Her images elicit deep empathy, highlighting a range of emotions in a single image to emphasize our shared humanity.
  - <https://www.nationalgeographic.org/media/storytelling-through-photography-hannah-reyes-morales/>