

Making Earth Art With Google Earth

Learning Activity

Grade Level K-12

Materials

- Computer with internet access via Chrome, Chrome OS, and mobile devices (Android and iOS)



connecting earth, science, and people

American Geosciences Institute

Source: Google
Adapted with permission.

Activity

If you were an alien visiting Earth for the first time, you might remark on the diverse and incredible landscapes and patterns around majestic mountains, green forests, rolling grasslands, and turquoise oceans. You also might recognize geometries of civilization and changing weather patterns. All this can be explored from space. In this activity you will explore our planet using Google Earth and locate natural and man-made patterns and landscapes on Earth's surface that inspire you.

Procedure

1. Open your internet browser and go to earth.google.com/web/.
2. Using each feature in Google Earth listed below, identify one pattern or landscape that you will share with your home planet. On a separate document describe what you selected, how it was formed, and what it inspires in you.
3. **Map Style.** View the world differently by clicking on the top sidebar icon and selecting "Map Style." Zoom out to a full globe view and under "custom" turn the clouds on and off. What patterns do you see in the clouds structure and location? (This is real cloud data collected from weather satellites.)
4. **Search for World Wonders.** Already inspired? Have a specific place in mind? Use the search bar to view the 3D landscape. For example, try searching for Mount Fuji (goo.gl/yk-fy2c) and learn about Fuji's tourism and natural hazards issues with Google Earth Education in Japan (goo.gl/muKPA2).

Google Earth search connects to Google's Knowledge Graph — its database of information about the world — to display information in knowledge cards. Save this location to your bookmarks by clicking on the icon in the Knowledge Card that appears.

5. **Take a Chance.** Want to explore Earth but need some inspiration? The "I'm Feeling Lucky" button will take you to a city, mountain, lake, beach, cave, temple, lake, island, museum, waterfall or somewhere else to get you started. Once there, use the Sidebar to turn on "Photos" and explore more views of your location.

Save this location to your bookmarks by clicking on the icon in the Knowledge Card.

6. **View Stories and Test Your Earth Knowledge.** The "Voyager" feature takes users through geospatial collections and stories using satellite imagery as the canvas. For teachers it offers subjects including finding the ABCs from space and seeing how artists create art from satellite imagery. Locations within Voyager cannot be saved directly. You will need to make a note of that location, and search for it separately, which will allow you to save that location with the bookmark option. Star by viewing a Voyager tour. For example, see art on the landscape (goo.gl/mRyyUi) or turn the landscape into art (goo.gl/Ntu7LE).

7. **Save and share your favorite places.** Your saved locations can be found in "My Places", in the left panel. The locations saved in My Places can be exported as a KML file (Google Earth's content file format), allowing others to see the same views. Click the icon next to "Bookmarks," then select the icon. Click "Export as KML file" and email the file that saves to your teacher.

8. The "My Places" panel can also be used to upload other KML files from other people. You will need to activate this feature in the sidebar (): Settings -> Enable KML file import. Explore geoglyphs that have been created on the Peruvian landscape using a KML file found at goo.gl/DPw4Ni (automatic download).

Learn more at www.google.com/earth/education.

NGSS Connections

- Science and Engineering Practices—Asking questions and defining problems
- Crosscutting Concepts—Patterns
- Disciplinary Core Ideas—Earth's System; Earth and Human Activity