

Virtual World

Google Earth is an example of software that combines the power of search engine with satellite imagery, maps, terrain and 3D visualization to put the world's geographic information at your fingertips.

Explorer's Guide

Before You Start

Many people want to visit Paris, Rome, London and other famous cities, natural and historic landmarks. Frequently, we read books and news report featuring these wonderful locations. However, it is frequently difficult to follow the story if you do not realize relative location of places your read about. Some modern software can be used to visit the scenery of your favorite story from a computer lab. In small teams, tell your teammates the name of one of your favorite book and share what you know about the location where story takes place. If this is a historical or futuristic story, can you relate it to the modern world? What would you like to see if you could physically enter the story?

Learning by Doing

1. Start Google Earth software and find your home by typing your address in the "Fly To" box and clicking Search. Use your mouse or keyboard to explore your neighborhood. Turn on and off different data layers listed on the left. Click "Directions" tab and enter the name of your hometown in "From Here" box and the name of town you'd like to visit in "To Here" box. Click the "Play" button to fly the shortest route of travel between the two towns.
2. Find the Statue of Liberty and record corresponding longitude and latitude shown at the bottom of the screen.

Longitude = _____

Latitude = _____

Compare your records with the students sitting next to you.

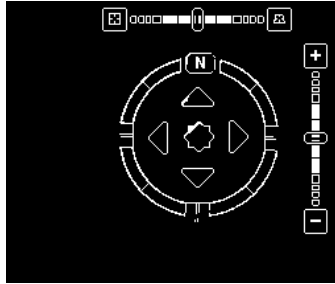
3. Turn on "3D Buildings" data layer and fly around New York City. Can you find the United Nation building?
4. Locate and identify coordinates for the 7 wonders of the world. What are they? Record your findings in the table below?

Wonder	Description	Latitude	Longitude
1			
2			
3			
4			
5			
6			
7			

How Does It Work

Google Earth is free software launched by the Google Company in 2004. It can be used to find geographic objects and driving directions.

Navigation can be done using the mouse, keyboard or trackball. For instance, grab the image with your mouse to move around. The navigation compass (shown below) allows you to manipulate the view in multiple ways. Drag the right slider up and down to zoom in and out. Drag the top slider left and right to tilt the view. To rotate the image, spin the navigator's on-screen wheel. Click "N" to return to the North-up orientation.



Use **Fly To** option to find geographic location using mailing address. Use **Find Businesses** to find specific or a set of businesses in a given town (e.g., hotels in Lincoln, NE). Click an icon identifying certain business to obtain more detailed information about it. Use **Directions** option to obtain travel direction from one address to another.

Various layers of mapping information (e.g., roads, geographic features, 3D buildings, fuel stations, dining and lodging) can be turned on when needed. It is even possible to see 3D buildings and virtually travel through big cities or mountains as in a computer game. Some geographic objects have photographs clipped to them viewable when clicking a corresponding icon. Google Earth files (.KML or .KMZ extension) can be saved to a folder and shared on the web for your friends to view. You can even email your images or print them.

Additional Challenge

Use Google Earth to complete Applied R&D in Activity 11 (GPS games). Just use scrolling options when monitoring changes in geographic coordinates for the pointer.

Interesting to Know

GPS data can be downloaded and viewed with Google Earth Plus, an upgrade of google earth.

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