

GETTING STARTED WITH GOOGLE EARTH

In the “Living on the Edge” unit we will be using the program Google Earth at various times, and providing you with a number of computer-based resources. To get setup:

1. Go to <http://earth.google.com>, download (for free) and install the latest version of Google Earth (GE). If you already have GE on your computer, make sure it is updated to the most recent version. There are manuals, and help available on line - but you can do a lot by just starting to explore as described below.
2. Once installed, open the program. Under the Tools/Options/3D View/ menu choose the “Decimal Degrees” and Meters Kilometers” options, and also and makes sure the “Show Terrain” box is checked.
3. Open the View menu. Go ahead and experiment with the options, but in general you should just have the Tool Bar, Side Bar and Status Bar checked. Also on the View menu, hover over Navigation and you will see several options for the compass arrow and slide bars in the upper right corner of the Google Earth screen. “Automatically” is a good choice as it leaves a ghost of the image visible until you hover over it.
4. Ok, with an active Internet connection, you now have an interactive view of the earth. Take some time to explore and figure out how the navigation works using keys, your touch pad, your mouse. For example:
 - Zoom in and out, move N, S, E, W, grab and spin the globe, etc. The resolution will change as you zoom.
 - Zoom waaaaaaaaay in to see individual buildings, roads, cars, etc.
 - Type your home address (or any place of interest) into the Search/Fly to window and click the magnifying glass.
 - On the GE tool bar, click the clock-with-an-arrow icon to explore historical imagery in an area of interest (views through time of the Princeton campus, for example)
 - Go 3D - zoom into a significant topographic feature (e.g. Mount Everest, the Grand Canyon, Niagara Falls). Hold the Shift key down and tilt the terrain using the Up/Down arrows to tilt the terrain, and spin the terrain using the Right/Left buttons. Do the same thing for topographic features on the ocean floor. Note that under Tools/Options/3D View you can increase the vertical exaggeration by up to 3x. This is useful to emphasize subtle features, but is pretty scary when you look at the Grand Canyon that way!
 - Do the same thing for topographic features on the ocean floor. Note how much topography there is on the ocean floor!
 - Explore the items Google provides under the Layers Menu at bottom right by clicking the on and off.
 - On the Google Earth tool bar, click the clock-with-an-arrow icon to explore historical imagery in an area of interest (views through time of the Princeton campus, for example).
5. Find something interesting, significant, cool, etc. to share with the group. E.g. check out what’s at 10.903791°N 19.935042°E (load this latitude/longitude into GE and zoom in.)

Useful Google Earth Tips

Customizing your “My Places” folder:

As you work in GE, you can move things that you want saved from the “Search” and “Temporary Places” menus into “Places.” You can also re-organize “Places” by adding and deleting items, changing the order of things, making subfolders, etc. When you close GE, the program *should* save “My Places” so it is there the next time you open the program. However:

IMPORTANT: It is good practice to save “My Places” frequently (via File/Save/Save My Places) as GE does *not* autosave during a session. If GE crashes during a session, you may lose what you have been working on.

To save individual items in your “Places” folder:

Either right-click on the item, or Select the item and **click File/Save/Save Place As...** and you will get a window which allows you to name the file, then saves it as a kmz file to whatever folder you designate. You can then reload this file into GE, email it to someone else, etc.

Making and saving an image of a Google Earth view:

Create the image you want by zooming into the area, clicking on what layers you want to show, adding labels, etc. Then click **File/Save/Save Image** and you will get a window which allows you to name the image, then saves it as a jpeg to whatever folder you designate.

Drawing topographic profiles:

Use the “Add Path” tool to draw a path across a region of interest (just click the start and end points of the line). This will add an “Untitled Path” item to Places.

Then, right-click on the “Untitled Path” item in Places and choose “Show Elevation Profile.” If the ocean floor looks flat, right click on the path again, choose Get Info, then under Altitude make sure “Clamped to sea floor” is chosen. Scroll along the profile line to see elevations on the map and on the profile line.