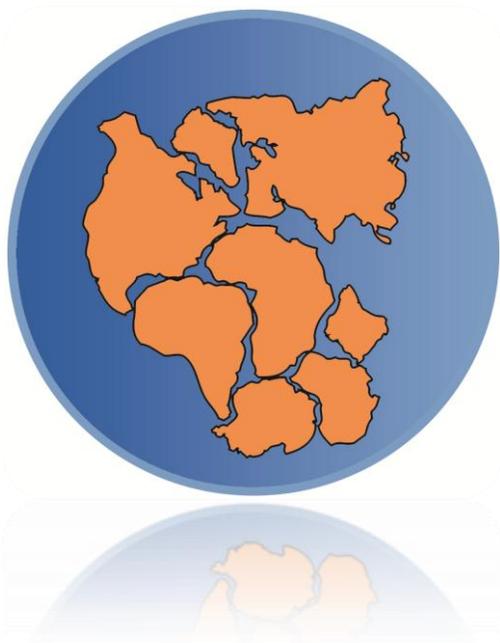

Cyber Enabled Earth Exploration (CE3)

Google Earth Introductory Activity



Google Earth Introductory Activity

Overview

The purpose of this activity is to familiarize you with the basic features found in Google Earth. You will learn several skills that will help you use Google Earth. Take your time working through each task in order to prepare yourself for the activities you will be completing in the CE3 curriculum. If you run into problems remember there are help videos in the Teacher Toolbox on the CE3 website.

Settings

Before you begin, check your Google Earth settings.

Check your Google Earth settings!

1. Turn off all Layers except **Borders** and **Labels**.
2. Select Tools > Options > 3D View > Units of Measurement > select **Meters, Kilometers**.
3. Select Tools, > Options > 3D View > Terrain Quality > check "Show terrain" > enter **2** for **Elevation Exaggeration**.
4. Select Tools > Options > 3D View > Show Lat/Long > check **Decimal Degrees**.
5. Select Tools > Options > Touring > check "**Show balloon when waiting at features**".

Search for a Place

Using the "Search" panel, type the name of your home town and state into the box and click the "Search" button. Use the navigation tools including zoom and pan to help locate your school. You may have to look for familiar landmarks. Once you have found your school, use the "Add Placemark" Tool to



add a placemark on top of the building to mark its location. Name the placemark "school" and click OK.

Next, find your home by using the "Search" feature. This time put in your street address, including the city and state. Once you have located your home, add another placemark. Name this placemark "home".

Measure Distance with the Ruler Tool

Using the Ruler tool  determine how far it is from your house to your school in kilometers. Record this observation. Distance from my school to my home (km) _____



Find Latitude, Longitude, Elevation, and Country

The latitude and longitude refers to a specific place on Earth's surface. Use the "Search" feature to find the following locations around the world. Fill in the latitude, longitude and elevation for each of the places below. You will find these at the bottom of your Google Earth screen. Make sure your cursor is over the point when you record the values. Then zoom out until you see the country name in yellow. Record the country name in the last column.

Place	Latitude	Longitude	Elevation (m)	Country
Mount Kilimanjaro				
Matterhorn				
Ayers Rock				

Create and Save a Path

Use the Search function to fly to the Marianas Trench near Guam. Use your "Path" Tool to create a path that crosses Guam and the trench. Name the path "trench" and press Ok to save it. Your path will be saved at the bottom of the folder you have open in your "My Places" panel. You can drag and drop the Path to another folder if you want.

Next you can change the color and width of your path. To do so, right-click on your path in the "My Places" panel. Scroll down to "Properties" and click to open the Properties dialog box. Click on the "Style, Color" tab and set the line color and width. Then click OK to save your changes.

Look at an Elevation Profile

Now find your path again in the "My Places" panel and right click on it. Scroll down to "Show Elevation Profile" and click. You will see a flat line with a bump that shows the island of Guam. The ocean looks flat because the path is clamped to the ground or mean sea level. This is fine for looking at things on land but not in the ocean. Open the Properties dialog box for the path and click on the "Altitude" tab. Select "clamped to sea floor" from the drop-down list and click OK. Now move your cursor across the elevation profile. How deep is the trench below sea level?

Depth of trench (meters below sea level): _____

Look at Historical Imagery

Historical imagery allows us to take a look back in time to see what changes have occurred. In Google Earth we can turn on the "Historical Imagery" tool  to look at a place and see how it has changed.



Use the “Search Panel” to find the Aral Sea in Uzbekistan. Click on the “Historical Imagery” icon in the tools panel to turn it on. Use the slider on the historical imagery tool to go back to imagery from 1973. Zoom out so you can see the entire body of water. Move the slider to the right to see how the Aral Sea has changed over time. Use the space below to describe the changes that have occurred over the past 35 years.

