

Google Earth Tour Instructions

(Teacher Master)

General Information

Some of your students may be familiar with Google Earth and/or Google Maps. But many of them may not be familiar with how to use these tools. When you open Google Earth, you'll be able to view Earth from space. This view will allow you to zoom in on any location on Earth.

There are two files to choose from, but first, you'll need to download Google Earth Pro (see instructions below). One of the files—Grand Canyon Tour from Pomona—is a prerecorded video tour. You can play this video in Google Earth and pause it as needed throughout the activity. However, this file does not have the pop-up clues for students to read.

The second file—Grand Canyon Exploration—allows you to manually navigate from one placemark to the next using the placemarks in the sidebar. This file also has the prerecorded video tour. This file does have the pop-up clues for students to read, therefore, it is recommended to use this file (see instructions below how to access and play this file).

Content note: Keep in mind that in lesson 1, students looked at pictures of landforms from a straight-on perspective (as if they were standing in front of the landform), and they built landform models out of sand. Then in lesson 2, students looked down at landforms on a relief map. This gave them yet another perspective of landforms, as well as a different scale. Now, in lesson 3, Google Earth will give students a panoramic or bird's-eye view of landforms, allowing them to see them in different scales by zooming in and out. Keep in mind that some students do very well with these types of tools, but others might struggle a bit with recognizing which landforms they're seeing from different perspectives. Pause the tour at any point if students seem confused by what they're looking at.

Activity

The Google Earth video tour for lesson 3 will zoom into Pomona, California, as the first stop on tour. If you used the Grand Canyon Exploration file, students will see a pop-up balloon with a picture of Pomona from an aerial or birds-eye perspective. Ask students to identify any landforms they see in the Pomona area. The purpose of this task is not to have students generate a list of landforms but rather to make sure they understand the orientation or bird's eye perspective from which they're viewing landforms.

From Pomona, the tour will take students to the Grand Canyon, giving them a short bird's-eye flyover with two more pop-up balloons—the Grand Canyon and the Colorado River. This flyover will provide some brief information about the canyon.

Next, you'll lead your students through three clues (on handouts):

Clue 1: A scientist visited the Grand Canyon this past year with his family. As they learned about the Grand Canyon, he found out that the canyon was about 2 centimeters deeper now than it was when he visited the canyon with his parents fifty years ago. It is getting deeper each year.

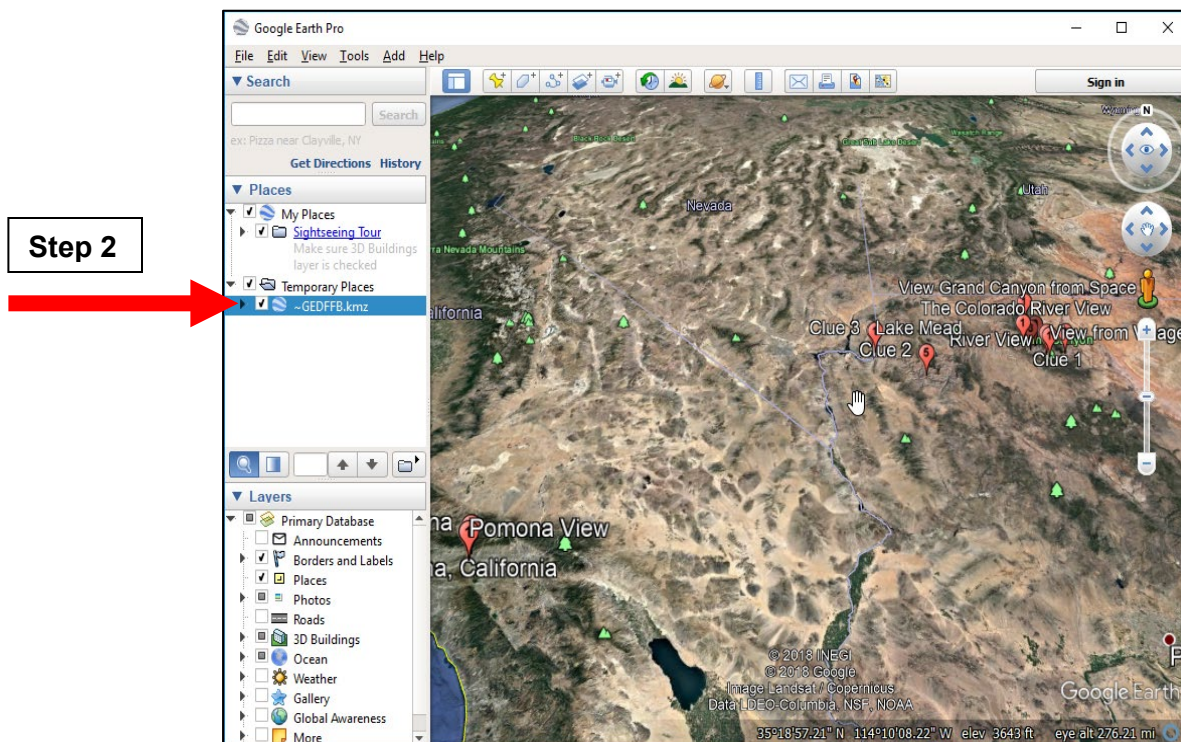
Clue 2: Swift, powerful water from the Colorado River cuts through the canyon carrying any loose soil and rocks with it.

Clue 3: Lake Mead is the lake at the end of the Grand Canyon. It is slowly filling with soil and rocks carried down from the Colorado River.

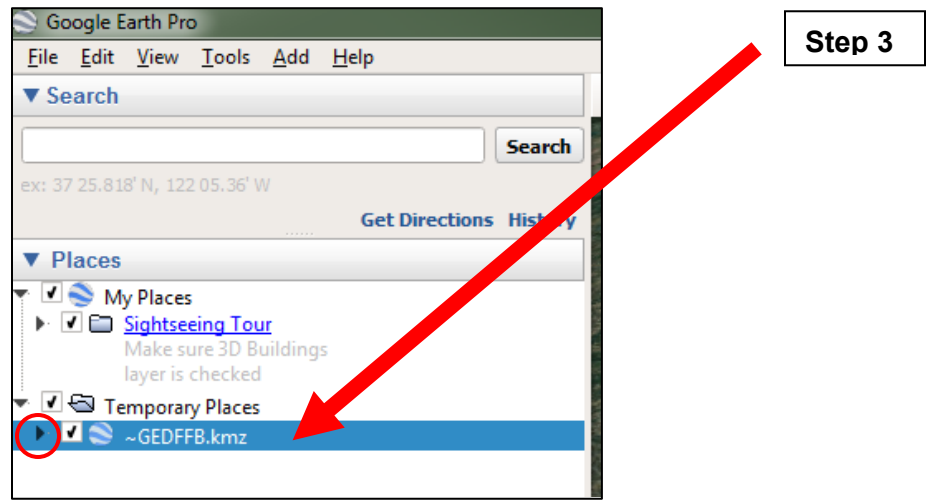
Following the Google Earth tour, students will work in pairs to discuss what they think these clues mean. Each clue will also have a pop-up bubble. Clue 1 helps students recognize that the Grand Canyon is changing and getting deeper. Clue 2 helps them understand the power of water from that carries rock and soil out of the canyon down the Colorado River. And Clue 3 helps them see that the rock and soil carried down the river from the Grand Canyon are deposited into the lake at the end of the canyon. Together, these three clues should help students understand that the Grand Canyon is changing, getting deeper each year as the river carries more rock and soil out of the canyon.

Google Earth Instructions

1. Download Google Earth onto your computer and install Google Earth Pro (<https://www.google.com/earth/versions/#earth-pro>). (**Note:** To play sound and show clues, it's important that you install **Google Earth Pro**. You can't do this with Google Chrome.)
2. Once Google Earth is installed, open the **Grand Canyon Exploration.kmz** file.



3. Click on **GEDFFB.kmz** under **Temporary Places** to highlight the file. Then click on the arrow on the left side to expand the **GEDFFB.kmz** folder.



4. Double-click on the **Grand Canyon Tour from Pomona** video file in the **Grand Canyon Exploration** folder. The video should play automatically with sound and clues.

