Where on Google Earth is Carmen Sandiego? Gridlines in Google Earth Activity

Gridlines are the lines on a map that help you know the coordinates of any given location. They most commonly show <u>latitude</u> and <u>longitude</u>, and that's what we give you in Google Earth.

Carmen Sandiego has visited some of the most prominent landmarks in the world, learning what makes them special and valuable to protect. Ask your students to play the role of detective, using a combination of lat longs and exploration to analyze and ask questions about natural and man-made wonders in Google Earth!



Appropriate Age Levels: 10 - 14yrs.

Estimated Time: 10 - 45 minutes

Materials Required: Computer with a Chrome Browser, or a classroom projector with

Google Earth on display.

*Recommended: Play one of the Carmen Sandiego Quizzes in Google Earth in advance to help guide questions and clues.

Instructions:

- 1. Go to www.google.com/earth
- 2. Use the 'I'm Feeling Lucky' Button to start exploring the world and navigating the Earth experience.
- 3. Teach your students how to find the latitude and longitude coordinates in the map display. As you move your mouse over different locations, coordinates will be displayed in the lower right corner. If your mouse is not in the map, the location coordinates for the center of the map display.

Have your students go to different parts of the world and observe how the numbers changes.

4. Once students are familiar with the concept, you can also turn gridlines on and off in the Map Style panel, and they'll appear in either decimal degrees or degrees, minutes and seconds, depending on the format you've chosen in Settings. This will give your



students a global view of the gridlines. You can begin to test their understanding of how the lines work by looking at different locations around the world.

4. Search for specific places that they are learning about in school by using their Lat/Long. Enter these latitude and longitude coordinates into the search field and press enter:

22 57 6 S 43 12 37 W	Rio de Janeiro, Brazil
27 59 16 N 86 55 31 E	Mount Everest, China-Nepal Border
25 20 42 S 131 O1 57 E	Uluru, Australia
23 58 14 N 32 52 37 E	Aswan Dam, Egypt
37 81 99 N 12 2.47 83 W	The Golden Gate Bridge, San Francisco, California
48 51 29 N 2 17 40 E	The Eiffel Tower

5. Ask students to describe and analyze what they see:

What physical features do they notice?

What cultural features stand out?

Where is this place? (Answer: Paris, France)

Can they learn more about the location by dropping down into Street View?

- 6. Ask you students to discuss ways in which Carmen Sandiego might use lat/longs in her capers? Are there other jobs where this type of information would be valuable? (Imagine Skydiving)
- 7. As a final activity, break your classroom up into small teams. Each team can select up to 5 locations around the world or the United States. The students will then come up with locations and clues for their peer's to guess what locations they selected. Add the lat/long points to the classroom computer display and you can revisit the locations in the future to test your student's knowledge.

This classroom resource was authored by Ms. Brenna Chapski, an educator based in California.

