

Internet Investigation: Tools of the Earth Scientist

Earth Science/Geology

Mr. Traeger

Name: _____

Period: _____

Date: _____

Background

We have discussed the scientific method and how scientists go about their business. What we have not talked about yet are the tools that scientists use to conduct their investigations. The computer and the satellite are tools of the earth scientist that have revolutionized how earth scientists conduct their investigations. The purpose of this activity is to use the computer to investigate what kinds of tools are available to advance discovery in the earth sciences. This will also serve as an introduction for how to do an Internet Investigation in this class.

Materials

- Computer with Internet web browser
- Pencil or Pen
- Class web site:
<http://www.lcusd.net/lchs/ttraeger/>
- Google Earth Program

Part 1: Satellites and Remote Sensing

1. Log on to your computer.
2. Open the application explorer window and double click on **Traeger Home Page**. If this does not work, you will need to type the address in manually.
3. Click on **Webquest Internet Investigations**. All links for this assignment will be listed here.
4. Click on %[ESU101: How Can Getting Farther Away from Earth Help us to See It More Clearly?](#)”
5. Go through each step of the process and answer the questions in blue text. Put your answers on the form on the back of this page.

Part 2: Geographic Information Systems (GIS)

1. Click on %[ES0204: Observe some products of a geographic information system \(GIS\)](#)+.Answer the following questions.
2. What is a GIS?
3. How might an earth scientist use a GIS to conduct a scientific investigation?

Part 3: Find La Cañada High School using Satellite and Aerial Photos in Google Earth

1. Start the Google Earth program by selecting %Start, Google Earth.+You must open your browser and then go to an outside website to authenticate before using Google Earth. See if you can find La Cañada High School using this online software. You can also try to find your house if time permits.
2. How does the high school look from this perspective?
3. What kinds of scientific investigations could you conduct by using this photo?

Part 4: Make a Geologic Map of La Cañada using an online Geographic Information System

1. Click on %[National Atlas: Go here to make a map of La Cañada!](#)+Use the online software to make a geologic map of La Cañada.
2. What kinds of features did you select for your map?
3. How could this map be used to conduct a scientific investigation on the geology of La Canada?

Conclusion: What role does technology play in the advancement of the earth sciences? Explain.