

See Yourself as a Scientist!

Research Adventures in the Transantarctic Mountains (TAMs)

Scientific research is interesting no matter where its conducted, but research in Antarctica has a very unique set of issues, requiring creative thinking, problem- solving and ingenuity. The purpose of this assignment is to become familiar with the process of scientific discovery and imagine yourself being the next polar researcher!

Step One: Become familiar with a research project going on right now in the Antarctic.

- a. Go to [teacher Brian DuBay's expedition](http://www.polartrec.com/expeditions/tectonic-history-of-the-transantarctic-mountains) on the polarTREC website. (<http://www.polartrec.com/expeditions/tectonic-history-of-the-transantarctic-mountains>)
- b. Read the section titled "What Are They Doing?" and explain in your own words here what this team is trying to learn and how they are trying to learn it.
- c. Choose the "Resources" tab, and listen to the webinar featuring Dr. Samantha Hansen describing the unknown origin of the Transantarctic Mountains.
- d. Find the video titled "Building and Installing Seismometers". Watch it and describe the devices here.
- e. After watching the webinar, and the "Building and Installing Seismometers" video, use your own words to describe the set up process to install a seismometer.

Step 2: Use google maps to tell a story! Imagine that you have been selected to travel to the research sites with Dr. Hansen and Brian DuBay when they return to the TAMs next December. The team's goal will be to service the seismometer stations- change batteries, check data collection and research additional seismometer sites.

1. While logged into your google account, open up a map using google maps. (If you don't already know how to use google maps, [this tutorial](http://youtu.be/_OnhEbwVJqc) will give you a good idea! (http://youtu.be/_OnhEbwVJqc))

2. Then, create at least 3 different place markers/pushpins within the TAMs range (or Antarctica generally) marking different experiences that you have along your journey. Some suggestions include:

a. Describe the return to an average research station as shown to you in Brian DuBay's journals. Show the data you anticipate them finding!

b. Read and watch Brian's account of the blue ice station and imagine yourself there too!

c. Revisit one other location described by Brian in his journals- maybe one spot that was particularly captivating for you, like McMurdo station, the penguin rookery, or the Italian research station.

3. Choose "collaborate" with your teacher when you are finished as a way of turning your project in!

Your Map Project Should Have a Sense of...

Criteria	Fulfilled?
The Science: why is the team monitoring the seismic activity of Antarctica- what do they hope to learn/discover?	
The Conditions: show an appreciation for the Antarctic environment and the ingenuity and problem solving it takes to do research there.	
Discovery: scientists are typically curious, inquisitive people with a sense of wonder. How do you show this in your place markers?	
The Details: place markers show thoughtful editing and excellent use of descriptive language and storytelling.	
Your Score:	