

The Science of Geophysicists

Today had been one of the most stressful days of Andrea's life. She was a senior in college and was ready to get a job and move on, she hoped that this project would help her get closer to her dream to become a science journalist. She had spent many months developing questions and interviewing Leon Kanapoff, a polite geophysicist and constructing an overview of the job of a geophysicist as required for the class. She waited for her turn to present her findings to the class and then she made her way to the front of the room to read her report.

"What are Geophysicists? Geophysicists are a special type of earth scientist that is closely related to geologists. Geophysicists use knowledge of physics, mathematics, and chemistry skills to study and determine the inside and outside of the earth, water and tides, and magnetism. There are several types of Geophysicists. These include Geodesists, Seismologists, Geochemists, and Geomagnetists. Geodesists study mainly the earth; physical traits, gravitational pull, tides, and rotation. Seismologists work on the information given from seismographs to determine where earth quakes will occur and when. Geochemists study how chemicals are distributed and found in materials above and below ground. Geomagnetists determine and calculate the earth's magnetic field which helps to create theories on how the earth developed.

Geophysicists use a variety of special tools and equipment to help them study their findings and theories. These instruments range depending on what category of geophysics they are in. Geophysicists that are closely related to the earth and the study of the rocks and sediments often use x-ray diffractometers. These can determine the structural properties and form signals to study the mineral crystals. Petrographic microscopes are used to study rock and mineral samples. Petrographic microscopes consist of many lenses including bipolar lenses. One slide absorbs the light from the stage so that what you see in the microscope is the light that's reflected from the slice of material. From this they are able to determine the name and properties of the rock. With these tools they can further their findings which in turn can help us more each day. Geophysicists impact our lives in numerous ways. They affect our lives by helping to determine where underground water sources lie so that we may leave it alone or use it. By determining characteristics of soil they help us to figure out where it is safe to build and what land we should save for farming and such."

After her speech her classmates clapped and her teacher nodded in approval. "I guess I had a successful interview and presentation," thought Andrea. "Maybe if this journalist thing doesn't work out I'll become a geophysicist!" Maybe not, but she did know that she would always remember the jobs and importance of Geophysicists and she hoped that everyone would remember too.