

Jobs in Earth Science

There are four main disciplines in the study of Earth: Geology, Meteorology, Astronomy, and Oceanography. Geologists study the Earth such as rocks, minerals, erosion, volcanoes, earthquakes and other Earth processes. Meteorologists study weather. Astronomers study space. Oceanographers study oceans. All four categories are interconnected. There are, however, many sub-disciplines in each of these fields. Below are a few:

- Hydrology
- Volcanology
- Mineralogy
- Paleontology
- Stratigraphy
- Seismology
- Petrology
- Geomorphology
- Geochemistry
- Crystallography

Using any means available to you, take 15 minutes to find out what is the “gist” of each of these studies. Then pick one of them and answer the following questions in the next 20 minutes. Know your field well enough to be able to share the information gathered with the class.

1. Which discipline did you pick?
2. What part of the discipline interested you?
3. Write a brief description of what a person working in the field would be studying and doing on the job.
4. How much would a person working in your chosen field make? Give a range if you find multiple answers.
5. What type of degree would a person need in order to get this particular job?

- **Hydrology**
 - Description. (Hydrologists study how water moves across and through the Earth's crust)
 - Person called (Hydrologist)
 - Pay (Median pay \$75,000)
 - Degree type (Min. Masters of Science)
- **Volcanology**
 - Description (Volcanologists are scientific researchers who study the properties of volcanoes and develop the science of predicting volcanic eruptions accurately.)
 - Person called (Volcanologist)
 - Pay (Median pay \$91,000)
 - Degree type (Min. Masters of Science)
- **Mineralogy**
 - Description. (A mineralogist is a person who studies minerals, which technically include all naturally occurring solid substances. Most mineralogists study minerals of economic value, such as metals like copper, aluminum, and iron ore, as well as gypsum and clays.)
 - Person called (Mineralogist)
 - Pay (Median pay \$61,000)
 - Degree type (Min. Bachelors of Science)
- **Paleontology**
 - Description. (Paleontology is the study of the history of life on Earth as reflected in the fossil record.)
 - Person called (Paleontologist)
 - Pay (Median pay \$107,000)
 - Degree type (Min. Ph.D)
- **Stratigraphy**
 - Description. (Stratigraphers study the layers of the Earth, crust, mantle and core.)
 - Person called (Stratigrapher)
 - Pay (\$44,000-\$161,000)
 - Degree type (Min. Bachelor's)
- **Seismology**
 - Description. (Collect information from Earthquake waves both natural and manmade..)
 - Person called (Seismologist)
 - Pay (Median pay \$91,000)
 - Degree type (Min. BS, but most have Ph.Ds.)
- **Petrology**
 - Description. (Determine composition of rocks and determine how to extract valuable minerals and natural resources from them.)
 - Person called (Petrologist)
 - Pay (Median pay \$91,000)
 - Degree type (Min. BS, but most have Ph.Ds.)
- **Geomorphology**
 - Description. (Geomorphologists study topographical features and why the Earth is shaped the way it is.)
 - Person called (Geomorphologist)
 - Pay (Median pay \$90,000)
 - Degree type (Min. Masters of Science)
- **Geochemistry**
 - Description. (Geochemists study the chemical composition of rocks and minerals.t)
 - Person called (Geochemist)
 - Pay (Median pay \$83,000)
 - Degree type (Min. Masters of Science)
- **Crystallography**
 - Description. (Crystallographers use x-ray, neutron, and electron diffraction to identify and characterize solid materials)
 - Person called (Crystallographers)
 - Pay (Median pay \$78,000)
 - Degree type (Min. Bachelors of Science)