

Geoscientists

SOC: 19-2042 • Career Profile Report

■ Key Facts

\$99,240

Median Salary

25,100

Employment

+3.0%

Growth Rate

■ Requirements & Salary Range

Education: Bachelor's degree

■ Automation Risk Assessment

Low Risk - 8.0% probability of being automated in the next 10-20 years.

This job is relatively safe from automation due to its creative, social, or complex problem-solving requirements.

■ Work-Life Balance

7.5/10 - Good work-life balance

■ Personality Fit (RIASEC)

Higher scores indicate better personality fit for this career type.

Realistic	6.2/10	Investigative	9.4/10
Artistic	5.6/10	Social	6.4/10
Enterprising	4.8/10	Conventional	6.4/10

■ Top Skills Required

Communication skills, Critical-thinking skills, Outdoor skills, Physical stamina, Problem-solving skills

✓ Strengths

- High Demand
- Flexible Work
- Continuous Learning

■ Challenges

- Burnout Risk
- Rapid Technological Change

■ What They Do

Geoscientists typically perform the following tasks:

- Plan or conduct geological, geochemical, or geophysical field studies or surveys, sample collection, or drilling and testing programs used to collect data for research or application.
- Analyze and interpret geological data, using computer software.
- Investigate the composition, structure, or history of the Earth's crust through the collection, examination, measurement, or classification of soils, minerals, rocks, or fossil remains.
- Analyze and interpret geological, geochemical, or geophysical information from sources, such as survey data, well logs, bore holes, or aerial photos.
- Identify risks for natural disasters, such as mudslides, earthquakes, or volcanic eruptions.
- Prepare geological maps, cross-sectional diagrams, charts, or reports concerning mineral extraction, land use, or resource management, using results of fieldwork or laboratory research.
- Communicate geological findings by writing research papers, participating in conferences, or teaching geological science at universities.
- Locate and estimate probable natural gas, oil, or mineral ore deposits or underground water resources, using aerial photographs, charts, or research or survey results.
- Advise construction firms or government agencies on dam or road construction, foundation design, land use, or resource management.
- Measure characteristics of the Earth, such as gravity or magnetic fields, using equipment such as seismographs, gravimeters, torsion balances, or magnetometers.
- Locate and review research articles or environmental, historical, or technical reports.
- Conduct geological or geophysical studies to provide information for use in regional development, site selection, or development of public works projects.
- Review environmental, historical, or technical reports and publications for accuracy.
- Assess ground or surface water movement to provide advice on issues, such as waste management, route and site selection, or the restoration of contaminated sites.
- Inspect construction projects to analyze engineering problems, using test equipment or drilling machinery.
- Provide advice on the safe siting of new nuclear reactor projects or methods of nuclear waste management.
- Design geological mine maps, monitor mine structural integrity, or advise and monitor mining crews.
- Review work plans to determine the effectiveness of activities for mitigating soil or groundwater contamination.
- Test industrial diamonds or abrasives, soil, or rocks to determine their geological characteristics, using optical, x-ray, heat, acid, or precision instruments.
- Study historical climate change indicators found in locations, such as ice sheets or rock formations to develop climate change models.