

Career Explorer Guide

Connecting students' interests with geoscience careers and the [United Nations Sustainable Development Goals \(SDGs\)](#) can be an engaging and meaningful way for students to understand how the geosciences can affect society. Below are some general questions that can be used to get students thinking about careers. Addressing these questions will give students a place to start as they use the Career Explorer to learn more about geoscience-related careers:

1. Identifying Interests:

- What are your main interests or things you care about?
- How do you enjoy spending your time?
- What specific issues or problems in the world do you feel strongly about?

It may help to have students complete an assessment (like those suggested below) to hone their ideas about their interests as many students may not be aware of how these could relate to skills that employers are looking for (i.e., liking to do puzzles can relate to critical thinking or complex problem solving).

Recommended assessments:

- [AGI's Sustainability Interactive \(Educator Guide\)](#)
- [Career OneStop Interest Assessment](#)
- [Career Test](#)

2. Understanding Geoscience:

One of the challenges regarding encouraging students to consider geoscience careers is that they may have a perception of geoscience that refers only to geology. It may be that the term “geoscience” is unfamiliar to students, as they may be familiar with Earth Science. Visit [AGI's Geoscience Careers page](#) to help introduce students to general categories of topics that geoscientists of various disciplines study, and which to relate to many geoscience+ career fields.

- What comes to mind when you hear the term *geoscience*?
- Can you think of any careers or fields of study that might be included in geoscience? Do you know of other careers that still use knowledge or skills related to geoscience?
- How do you think geoscience contributes to addressing environmental, economic, or societal challenges?

3. Connecting Interests with Geoscience:

See [*AGI's Introduction to the SDGs, available at 3rd, 7th, and 10th grade reading levels*](#) to help acquaint students with the connections between the SDGs and the geosciences.

- Based on your previous responses, what might be some geoscience-related careers that could align with things that are important to you. That is, your interests, things you care about, and/or issues you feel strongly about?
- How might a career in geoscience contribute to addressing the SDGs that relate to the issues and/or topics that are important to you?
- Can you think of any examples where geoscience has been used to tackle real-world issues related to your interests, or the SDGs you can connect to things that are important to you?

4. Using the Career Explorer:

Have students use the [*Career Explorer*](#) to select their personal interests in addition to the SDGs they would most like to address. A list of career fields will start to populate at the top of the screen as they make selections, with each selection further narrowing the choices. Be sure that students understand that many job titles may fall under each career field, which they will see in the output at the bottom of the webpage. Clicking on each career field will allow students to see specific career recommendations, each of which has a description relating it to the geosciences. A printable report can also be generated for students' recommended careers.

- Out of the list of career fields generated for you, which are related to specific geoscience topics you are curious about?
- Use the links provided for each career field to see what job titles are included within them.
- What skills or qualifications do you think are necessary for the career fields related to your topics of interest?
- How might these career fields contribute to sustainability or addressing global challenges?

5. Creating a Career Path:

Each career page has a link to [Career OneStop](#), and most also have a link to the [U.S. Bureau of Labor Statistics](#). These websites provide more specifics on each career, such as the skills, educational background, salary, and information about the typical tasks in which people in the career are most likely to engage.

- Imagine yourself in each of the career fields recommended to you by the Career Explorer. At this point, are any of them more interesting to you than the others? If not, try selecting different combinations of SDGs and interests in the Career Explorer until one of the careers suggested piques your interest.
- What steps might you need to take to pursue this career?
- What might be some educational or extracurricular opportunities that you could explore to gain experience related to this career?

6. Reflecting on Impact:

Research (or have students research) opportunities for science clubs, camps, and other programs that would help them learn more about areas of geoscience or the careers that interest them. It may also help to look into geoscience programs at higher education institutions such as 2- or 4-year colleges about what opportunities are available. You could also connect with professionals who work in geoscience-related careers to have them be a guest-speaker or arrange a field trip so students can learn more about specific areas of geoscience that they find interesting. For many of these options, your state geological society is a good place to start. Explore information about [state geological surveys](#) and the geoscience-related projects being done across the U.S.

- Given what you've learned about geoscience careers, in what ways could you make a positive impact through a geoscience-related career?
- What challenges do you think you might face in pursuing a geoscience-related career in a way that helps you address things that are important to you, such as your interests and specific SDGs? How might you overcome these challenges?
- What motivates you to pursue a career that aligns with the SDGs? To what extent do you think that motivation could be satisfied by what you know about the career?