

Author Template
Powerful Geography: International Perspectives and Applications

Chapters: Potential topics will be identified from the student aspirations survey and may include careers related to climate change, urban sustainability, national security, migration, water resources, sustainable agriculture, development, hunger, disease and epidemics, trade, infrastructure, energy, environmental hazards, resource management, etc.

A. Introduction

1. Ask students in a class you are teaching to complete the Powerful Geography student aspirations survey. We can provide the complete student survey for you, and you can adapt it as you wish. The main question about job/career interests is provided below.
2. Summarize the results of the survey data. What were the most and least popular career aspirations of your students?

*Caveat: Think of other data collection possibilities if access to students is limited.

B. Applied geography example

1. Find a non-academic professional geographer who works in an occupation connected to the most popular (#1 ranking) career area identified in the student survey data. Describe this person's educational background, current job, and major responsibilities.
2. Using a protocol provided by the Grosvenor Center at Texas State University, interview the geographer to identify the geography knowledge, skills, data, perspectives, and technology used in their work.

C. Teaching and learning activity

1. Create a lesson for secondary school or university-level geography instruction that models the work and applications of the interviewed geographer. The lesson could be an inquiry activity, fieldwork, GIS analysis, case study, etc.
2. Explain how the lesson connects to the geography curriculum in your country and real-world job prospects and life and career aspirations of students in your country.

D. Conclusion

1. How might you further develop the Powerful Geography approach in your country as a means of conveying geography's importance and usefulness to individual learners and to society? How will teachers need to be assisted? What is the role of pre-service teacher education? How might parents, policy makers, and other stakeholders be involved in the process?

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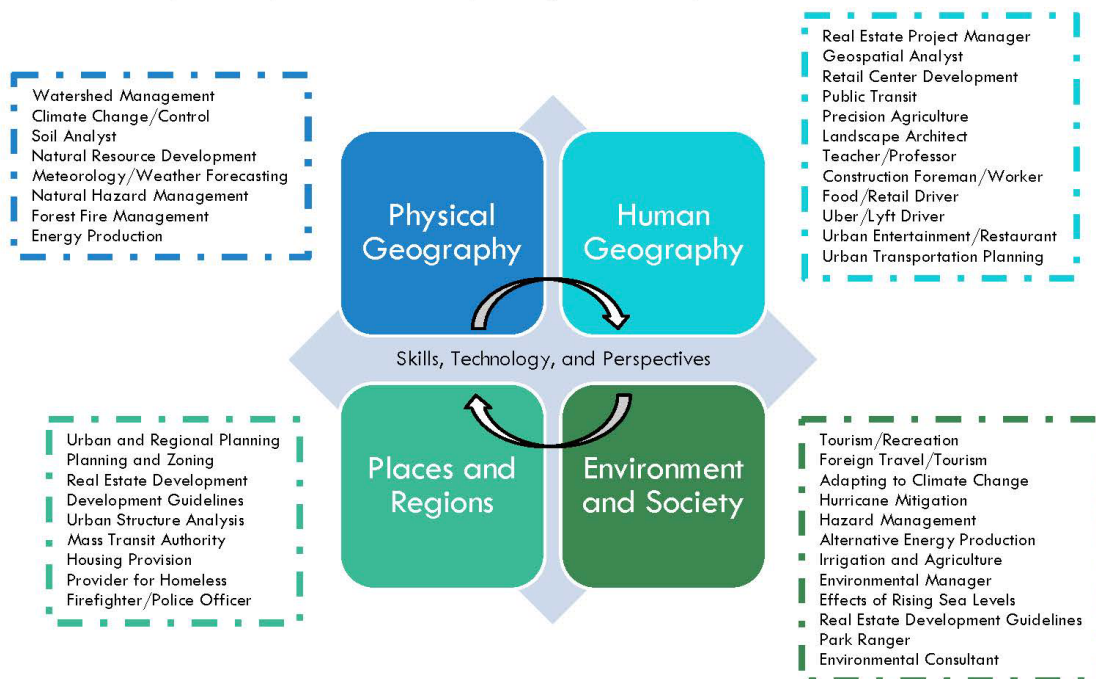
Think about what job/career you would like to have when you get out of school. What areas interest you? *Please select one response in each row.*

| | Not interested at all | A little bit interested | Very interested | Extremely interested |
|--|--------------------------|----------------------------|-----------------------|-------------------------|
| Medical/Health Care/Nursing | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Environmental Matters; Conservation; Sustainability (Climate, Water, Wildlife, Forests) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Education (Teacher, School Administrators, Counselor, etc.) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Real Estate Sales & Mapping/Zoning | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Transportation Planning (Highway & Transit) and Transportation | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Commercial Planning and Construction (Shopping & Entertainment Centers) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Housing/Urban Development | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Farming/Agriculture/Ranching | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Tourism/Travel | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Restaurants/Hospitality/Food and Beverage | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Military | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| First Responders (Firefighter, Police, EMT) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Technology (Google, Apple, Microsoft, Amazon, etc.) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Social Work | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The Arts and Entertainment (Theatre, Dance, Music, Literature, Media, Sports) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Space (NASA, Aerospace) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Engineering (Environmental, Mechanical, Chemical) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Fashion Industry | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Marketing and Advertising | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Government, Law, and Criminal Justice System | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Trade Jobs | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Business | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Sciences (Life, Physical, Social Science) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Teaching and Learning with Powerful Geography

Geography: As we all know, geography is an eclectic subject spanning the human and physical world. New techniques in geospatial analysis enrich the discipline. Too often “learn it all” standards ask that students learn the same geographic content and skills. This “top-down” approach has resulted in rote memorization learning, a characterization that seems to have lingered in the minds of students and the general public. We can and must do better.

Powerful Geography (PG): As teachers look out at their classes, they see students of different races, ethnicities, and religions. Students have different socio-economic backgrounds, widely varying abilities to learn, and a broad range of aspirations. The “top-down” curriculum prescription does not fit this diversity. PG is what Wesley Null calls a “liberating curriculum”. Through geography, each student can embark on a critical pathway to jobs and careers as well as carve out an honorable and productive place in modern society that aligns with their aspirations.



The above diagram suggests the value of PG and links each major category of geography to a sampling of jobs and careers that can help all students achieve what they want to be and do in the future. And, yes, many of these opportunities span more than one focal area. Also, significant strides have been made in the geospatial technology sector highlighting jobs that require training in computer mapping, the use of analytic tools, and different ways of thinking about the world. In all cases, geography offers a perspective that is spatial, place-based, and concerned with solving social and environmental problems.



Sample Interview Protocol for Professional Geographers

Introduction:

Please describe your job, employer, and the primary tasks you perform in your position.

Interview questions and topics:

1. We are interested in knowing how you perceive the importance and usefulness of geography in your work. In terms of geographic knowledge specifically,
 - a. What *substantive* geographic knowledge is important and useful to know? For example, this includes knowledge and understanding of geographic terminology and substantive concepts (e.g., alluvial plain, metropolitan area, ethnic group, tertiary economy, coniferous forest, geologic fault, etc.).
 - b. What *conceptual* geographic knowledge is important and useful to know? For example, this includes using “big ideas” in geography such as location, place, region, interconnection, spatial relationships, etc., to think about people, places, and environments, from the local to the global.
 - c. What *procedural* geographic knowledge is important and use to know? For example, this includes spatial analysis with a GIS or other geospatial technology, designing a geographic inquiry and research study, collecting spatial data in the field, etc.
2. Next, we would like a specific example of how you apply geography to analyze and solve problems related to important issues. What is an example of a social, economic, environmental, or other issue that you have recently investigated in a project at work?
3. What types of questions did you ask and think about in your project? We are especially interested in geographic questions (i.e., questions based on disciplinary concepts such as location, place, interconnection, space and scale, environment, etc.).
4. What types of data did you acquire to support your project? If possible, please identify up to three datasets you utilize most.
5. What types of content knowledge and skills did you use to evaluate, process, and analyze the data you gathered for your project? Please specify content knowledge and skills related to geography, as well as more general types of skills.
6. How did you apply geography to communicate the results of your project (e.g., apps, datasets, writing technical reports, making maps and geo-visualizations, creating graphics, data tables, etc.)? Do you have a recent product or publication to share with us as an example?

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7. Reflecting on your work, how does it align with your aspirations from when you were a student?