Earth Science Education

Hope Gantt

Geoscience reveals how all of the natural resources humans utilize and disasters humans face occur in complex relationships among Earth's atmosphere, hydrosphere, biosphere, and geosphere. Understanding and investigating these relationships is crucial to solving current environmental problems and taking legal action. Despite the ways Earth Science is embedded into our lives, it is scarcely taught in K-12 education. Richard Somerville discloses that "Many young people emerge from the K-12 educational experience largely ignorant of science and frightened by technology." Since the Earth is constantly changing and will confront the next generations with new questions, geoscience education needs to improve.

Currently, geoscience is inadequately taught throughout K-12. Considering geoscience requires advanced knowledge in other sciences, it can be difficult for less-privileged children to obtain an education. Also, to fully understand the Earth, people must spend time outside. Underrepresented minorities compose of 22% of America's national park visitors and 27% of outdoor participants. These statistics demonstrate the barriers children might have to education.

Conversely, geoscience education gives children the opportunity to harness creation. An increase in knowledgeable teachers, research opportunities, rigorous courses, school partnerships, and hands-on learning would all impact K-12 Earth Science. Even if students are not planning to pursue geoscience, education allows for "an appreciation of the close interactions between Earth processes and human society," as Kent Kirkby describes.

Due to the many struggles our world faces right now, it is crucial for people to be informed about the Earth. Changes will come and as Greg Smith notes: "young people really need to be seen as citizens right now rather than citizens in the future." Since the effects of Earth Science impact everyone, the education should too. Geoscience acts as the gateway between all peoples, because no matter what ethnicity or gender you are, we inhabit the same intricate Earth.

References

Cook, T. (2018, August 6). *Place-based education: Teaching geoscience in the context of location and culture.* Retrieved from https://www.earthmagazine.org/article/place-based-education-teaching-geoscience-context-location-and-culture

The Geological Society of America (2016, May). *The Importance of Teaching Earth Science.* Retrieved from https://www.geosociety.org/documents/gsa/positions/pos4_TeachingEarthScience.pdf

Geoscience Education Working Group (n.d.). *Geoscience Education: A Recommended Strategy*. Retrieved from https://www.nsf.gov/geo/adgeo/geoedu/97_171.jsp

Guitard, M. (2018, July 26). *Why Don't the Geosciences Have More Diversity.* Retrieved from https://blogs.scientificamerican.com/voices/why-dont-the-geosciences-have-more-diversity/