

GEOSCIENCE WITH DR SHELDON TURNER

TALKING POINTS

KNOWLEDGE

1. What is social capital?

COMPREHENSION

2. How does the Triton GENIUS Scholarship Program help to make geoscience more inclusive?

APPLICATION

3. Not all scientists are good communicators. How do you think the scientific community can become better at communicating science?
4. "All disciplines improve with improved diversity," says Sheldon. How could you test this?

ANALYSIS

5. Sheldon says that agricultural and urban areas have their own set of environmental issues. How do you think the environmental challenges these two sorts of landscapes face differ from one another?
6. Why do you think it is important that the scientific community accurately reflects real-world communities?

SYNTHESIS

7. Chicago is the third-most populous city in the USA. Although cleaner than it has been in decades past, the Chicago River still suffers from pollution. How do you think geoscientists might be addressing this issue?
8. Illinois has a history as a major producer of fossil fuels, so contributing to climate change. If you were a geoscientist, would you work with the fossil fuel industry? Why or why not?

EVALUATION

9. Sheldon says, "I believe the two biggest challenges for society are how to source energy without exacerbating climate change, and how can we ensure our communities have reliable clean water." Do you agree? Why or why not?

ACTIVITIES YOU CAN DO AT HOME OR IN THE CLASSROOM

You are designing a programme in your **local area** to make a geoscience course more accessible to people from diverse backgrounds. The ultimate aim is to ensure the make-up of the geoscience student body is reflective of the wider community. The programme has a limited budget. Set out your approach to the design of the programme, thinking about:

- The social and economic backgrounds of the people who make up your community
- How geoscience directly affects your community
- How to attract people from different backgrounds to consider a geoscience course
- How the course itself could be inclusive
- The role of social capital
- How the course could incorporate hands-on field research in your area
- What career paths would be available to graduates of your course

Once you are done, present your proposal to your class or group in an engaging and informative way.

MORE RESOURCES

- This paper from Nature Geoscience says there has been 'no progress on diversity in 40 years' in geoscience in the USA. As well as presenting the evidence, it also offers suggestions for improvement:
<https://www.nature.com/articles/s41561-018-0116-6>
- This video from Dr Chris Geoscience gives a candid take on geoscience as a career path:
<https://www.youtube.com/watch?v=7IN0HiOMiZE>
- The UK's Geological Society has a wealth of resources on their website for learning about geoscience:
<https://www.geolsoc.org.uk/SupportingMaterials>