

# GEOSCIENCE WITH DR GLENN DOLPHIN

## TALKING POINTS

### Knowledge:

1. Which areas of study does geoscience incorporate?
2. Which modern problems can geoscience address?

### Comprehension:

3. In your own words, describe what a virtual outcrop model is.
4. Explain the process the trainee teachers went through on Glenn's project.

### Application:

5. Can you think of an instance where models could help you in your learning?
6. What approach to teaching would you take if you were a geoscience teacher?

### Analysis:

7. How do Glenn's approaches to geoscience compare with your experience of it?
8. What are the motives behind Glenn's work?

### Synthesis:

9. Imagine you are teaching younger students a geoscience lesson. Decide on a topic and think about how you would make the learning engaging for them.
10. Write some top tips for teachers planning a geoscience lesson.

### Evaluation:

11. What is the value of learning about the people and contexts behind science?
12. Glenn likes to be bold and "embrace change". What are the pros and cons of this mindset?

## ACTIVITIES FOR HOME OR IN THE CLASSROOM

1. Design and build a model of a geoscientific process with a group of classmates. Use your own thoughts and explore ideas online to think about how you might design and build the model. The end product should help make it easier to learn about the key process you have chosen. Processes you could choose include:

- Tectonic plates
- Volcanos
- The water cycle
- Climate change
- Tides
- Sedimentation
- Weathering
- River formation
- Earthquakes
- Fossilisation

2. Design a way of testing whether your model has helped people learn about your process. For instance, you could design surveys to test their knowledge before and after you have shown them the model. See if you can include feedback - see what aspects of the model people liked, and how they felt it could be improved.

## FURTHER RESOURCES

1. Earth Learning Idea has a huge number of practical ideas for building your own geological models, and lots of further information besides: [https://www.earthlearningidea.com/home/Childrens\\_fun.html](https://www.earthlearningidea.com/home/Childrens_fun.html)
2. The Earth Science Education Unit has many resources for schools, including virtual activities and ideas for the classroom. They also run training courses for teachers: <https://www.earthscienceeducation.com/resources/index.htm>
3. Common Sense Education has a list of Earth science apps, websites and games, covering topics such as volcanos, earthquakes, rivers, geological history and much more: <https://www.commonsense.org/education/top-picks/awesome-earth-science-apps-websites-and-games>
4. Teach the Earth is a portal to thousands of resources from dozens of Earth education websites: <https://serc.carleton.edu/teachearth/index.html>