

Start 1:40 to save time.

1. Why do much of the Pb, Ni, & Fe go toward the center of Earth instead of staying on the surface? ([PTable.com](#) may help.)

2. Why does granite form the floating surface continents? (Patience. This is covered at least twice in the film.)

3. Some pillow lavas date to 3.5 billion years ago. What does that prove about conditions on Earth at that time?

4. What did Alfred Wegener notice that prompted him to think that continents drifted?

5. Why did scientists (including Alfred Wegener himself) reject Wegener's theory?

6. What is crazy about Iceland and how fast is that crazy thing happening? Give numbers and units.

7. What happens tectonically or geologically when a continent gets too large?

8. Vaalbara, Kaapvall, Rodinia, Gondwana & Pangea all were_____.

9. How did having one supercontinent change the climate and why was this so? (Contrast this with weather on an island.)

10. Draw and describe what happens at a subduction zone at 25:26 in the film. Label the parts. Use arrows. Add a millipede.

11. Look carefully at 30:40 in the film 100 MYA. Could you have been an early Forrest Gump & run from Canada to S. America? Why?
12. What happens if two plates with light, low density rock collide & neither will subduct? (Ron Blakey is a geology professor at NAU!)
13. How did those marine fossils get to 7,000' elevation at the Grand Canyon? Did they hike? Was it fast?
14. Describe briefly two ways that plate motion affects humans.
- A
- B
15. Is Phoenix in **big trouble** in the next 10,000 years from activity at plate boundaries? Why? (Think critically. Many miss this.)
16. Either 1) Write one geology-related question you have related to this film or 2) Draw a picture of a millipede doing something geologic and saying something about how cool geology, environmental studies, and entomology are.

Everything you just watched is graphically illustrated in [this 2-minute video](#).
Handy Words: craton