

Bridging Q's

Day 7

Goals: As a result of today's teaching you should be able to explain the significance of a long time scale for the earth and the universe.

Breakfast: Earth is 4.6 billion years old.

How do we know what rocks are older and which are younger?

Since rocks can be tilted, why can't they be preserved upside down, with the older layers on top?

How do we know the top and bottom of rock layers?

If large parts of the geological record are missing in a particular place, how can we reconstruct the past?

Houghton lava flow

If a lava flow has a bubbly top, what happens when it is weathered and eroded?

If a flow top is bubbly what happens to groundwater flow?

What happens if there is a hot fluid with copper in it?

If tilted lavas occur on a shoreline, as they do at Eagle Harbor, how is the shoreline affected?

Eagle Harbor Lighthouse—the idea of a rift

How do we determine the age of the lava flows?

In a tilted lava sequence, where would you expect to find copper?

How could there be conglomerates interbedded with lava flows?

If the lava units on Isle Royale are the same as the Keweenaw ones, but they are tilted to the south instead of the north. can we devise a way to explain both observations?

Did the north pole move or did the continents move? How do we know the answer?

Delaware Mine

What happens when the rifting stops?

How can we understand what it was like when the Copper Harbor Conglomerate formed?

What was the Proterozoic like? Did the landscape look like it does now?

How was the atmosphere different? What is significant about this?

Horseshoe Harbor