

Cosmos: The Lost Worlds of Planet Earth

Name: _____ Period: _____ Date: _____

1) What led to an explosion of oxygen during the Carboniferous period 300 million years ago? (5:00)

2) What led to the Permian extinction 248 million years ago? (10:00)

Start video at 14:00 to 18:00 for Wegener piece

3) In 1570, Abraham Ortelius initially ponders a connected earth based on the puzzle shapes he sees in the atlas he makes. What lines of evidence did Alfred Wegener have that led him to believe that lands separated now by oceans were once connected in a supercontinent called Pangaea? (15:00)

4) Why was Wegener's big idea about continental drift and Pangaea not accepted by the scientific community? (17:00)

5) Who was Marie Tharp and what did she do with Bruce Heezen's sonar maps of the ocean floor? (19:00)

6) How can there be life on the ocean floor at mid ocean ridges? (23:00)

7) What is one of the driving forces for plate tectonics that Tyson describes? (25:00)

8) How did the extinction of the dinosaurs give rise to the age of mammals? (28:00)

9) How did the closing of the isthmus of Panama cause changes to world climate? (31:00)

10) How does the last part of the video put in perspective the interplay of orbital motions, human activities, climate change, and mass extinction events? How are we, in essence, the determiners of our own fate? (35:00 to 43:00)