| Group | Explain the phenomenon | How does it help me understand the earth in the distant past? |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Animal Fossils | Animals have been found on either side of the Atlantic Ocean. Scientists know the animals could not have traveled across the ocean. | The presence of the same animal fossils in two locations that are currently far apart from each other suggest that in the past the continents/ areas with the fossils were once touching. Also, the presence of Lystrosaurus fossils in locations with currently cold climates (Antarctica) suggest that this continent used to be in a different location on the earth—one with a warmer climate closer to the equator. |
| Plant Fossils | Fossils from a green fern have been found in South America, India, Africa, Australia, Antarctica, and Madagascar. The climate where these trees once thrived was relatively temperate, scientists think. | Finding the same fossils in several locations on Earth, which are now separated by oceans, suggest that in the past the continents/areas where the Glossopertis fossils have been found were touching. It is unlikely that the leaves could have traveled such long distances over large bodies of water. |
| Glacial Evidence | Valleys that were carved by glaciers in the past have been found in very arid places such as Africa. | The presence of past glaciers in areas that are currently arid suggest that the present locations of the continents has not been constant. In other words, the continents are currently in different locations from where they were about 300 million years ago. |
| Fit of Continents | South America and Africa appear to fit together like a puzzle. In addition, North America seems to fit into the bulge of northwest Africa. | The puzzle-like fit of the continents were used as evidence to suggest that in the past the continents were joined into one supercontinent. |
| Rock Sequences | The rock sequences of South America perfectly match the rock sequences of Africa, even though there is currently a large ocean between these two continents. | The exact same rock sequences found along these two coastlines that are now separated by the Atlantic ocean suggest that in the past, the two continents were together. |
| Climate Changes in Antarctica | Plants are needed to form coal. Coal deposits have been discovered in Antarctica, where plants are not typically found. In addition, animal fossils that could never live in the current Antarctic climate have been found there. | The presence of coal deposits, and therefore evidence of past plant life in Antarctica, suggests that the climate of this region was much warmer in the past than it is today. The animal fossils in Antarctica led scientists to the same conclusion. The climate was likely different because the location of the Antarctic continent has changed over Earth's history, suggesting movement of continents. |