

## ACTIVITY 5— THE CHANGING GEOGRAPHY OF YOUR COMMUNITY

### Background Information

The forerunner to the theory of plate tectonics was first proposed as “continental drift” early in the twentieth century by Alfred Wegener, a German meteorologist. As evidence for his theory, Wegener cited the modern distribution of several distinctive kinds of mineral deposits, rock formations, and fossils, which are now widely separated but which must have been together earlier in geologic time. These features were especially useful in implying that South America and Africa were once joined.

The reconstruction of Pangea is an illustration that is common in most high school Earth Science textbooks as well as the resources listed above and at the end of this guide. This exercise is also one that Wegener used in attempting to prove his ideas. The difference here is that students

will use measured motion from today to “move” backward in time. The good (although not perfect) match of the geometry of continental margins as well as clues provided by distinctive kinds of minerals, rocks, and fossils make it obvious (hopefully) to the students just why Wegener proposed his theory of continental drift so long before modern evidence was available.

Once students have confirmed that plate motion is real and that all parts of Earth are in motion, they then will be led through the ideas that moving plates carry landmasses through varying climatological and ecological regions. Finally, the changing climate and ecology of their community is examined. Because these movements can vary for different parts of the country, you will have to personalize this part of the activity for the location of your school.

The *EarthComm* web site, [www.agiweb.org/earthcomm/](http://www.agiweb.org/earthcomm/), contains a variety of carefully selected links to web sites that will help you to deepen your understanding of content and prepare you to teach this activity. Many of the sites also contain images which can be downloaded and made into overheads for incorporation into class discussions.