
**Putting it in motion:
plate tectonics as a classroom activity**

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Most students are familiar with the basic concept that the lithosphere, or outer shell of the Earth, is divided into several relatively rigid plates that move over the underlying asthenosphere. The theory of plate tectonics describes the interactions of these plates, and the deformation, such as stretching, folding or shearing, that takes place along their edges. Many of the present and past geologic processes can be related in some way to plate tectonics: nearly all earthquakes and most of the Earth's volcanism occur along the plate boundaries; mountains have formed, ocean basins opened, and flora and fauna have

thrived or died, as a result of plate motions and interactions; even climate and ocean circulation have been affected by plate positions. A solid understanding of plate tectonics will underpin other lessons in earth sciences.

One approach to teaching plate tectonics is to involve the students in a live demonstration of plate motions through time. This latest version of a popular classroom activity uses the students themselves to represent continental fragments and landmarks, such as the poles and equator. As geologic time progresses through several hundred million years, the students move around the “globe” and experience firsthand the transition from a position near the poles to latitudes where warmer climates prevail. Interactions along plate boundaries are experienced as groups of students separate, or occasionally collide to form supercontinents. The physical activity is typically accompanied by a discussion of climate, fossils, active tectonics, and local geology. The activity has been prepared for a junior high level class with 20 or more students, but can easily be tailored to different age groups and class sizes. A quick demonstration will provide a graphic – and entertaining – overview of the activity.