

Subject: Science

Grade: Seventh

Standard: #9 Common Themes

Key Concept: Models are often used to think about processes that happen too slowly, too quickly, or on too small a scale to observe directly, or are too vast to be changed deliberately, or that are potentially dangerous.

Generalization: Plate tectonics is a theory that can be used to explain large-scale geologic change over expanses of time.

Background:

This lesson is at the beginning of a unit focusing on earth's changes over time. Students are introduced to the theory of plate tectonics through an activity about the supercontinent, Pangaea. Students then complete activities to determine how seafloor spreading and volcanoes contribute to solving the plate tectonics puzzle.

The activities come from Project Earth Science: Geology, ISBN 0-87355-131-1. Each activity includes a materials list, complete instructions, and questions. Activity Four is a great activity to introduce the concept of a supercontinent if you don't have one.

This lesson is tiered in *process* according to *learning style*.

Tier I: *Visual Learners*

This group will complete Activity 9, "Volcanoes and Plates."

Tier II: *Kinesthetic Learners*

This group will complete Activity 8, "Seafloor Spreading."

Assessment:

Teacher observation and student interviews during the investigation will serve as formative assessments. Students should answer the questions posed

with each activity. These questions can form the basis for whole class discussion. A possible whole group culminating activity would be to create a KWL chart about plate tectonics. This chart can be the guide for studying the rest of the unit.