



Plate Tectonic Theory

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Science
Grades 9–12



Introduction

Students will gain an understanding of plate tectonics through the study of past and current continental and oceanic movement. Students will make predictions about what the world will look like after another million years using the plate tectonic theory.

Learning Objectives

Students will evaluate evidence of the past and current movements of continental and oceanic crust and the theory of plate tectonics to explain the ages of crustal rocks. ([Next Generation Science Standard HS-ESS1-5 Earth's Place in the Universe](#))

Materials Needed

- Journals/notebooks
- White copy paper or construction paper
- Colored pens or pencils, markers, or crayons

Procedure

1. Begin the lesson by displaying a picture of the world on the board. Then, ask students this question: When you look at our planet, has it always looked as it does today? Allow students time to brainstorm and pair/share with a partner.
2. Display the [picture](#) on the board. Ask students to think about what they see. Then, inform students that the landmasses in our world were connected at one point.
3. Students should take notes as you introduce the **theory of plate tectonics**. [Here is an optional video clip](#) that outlines the key characteristics of the theory. Discuss the causes of continental and oceanic movement as it relates to **Pangea**.
4. Ask students to ponder the following question: If the landmasses were once joined, are they still shifting today? Allow a few students to share their responses with the class. Discuss the current conditions surrounding continental drift.

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- To close the lesson, students will work alone to make predictions about what the world will look like in another million years. Students will use white copy paper or construction paper to draw a picture of what the world may look like. Students must be specific and support their claims with evidence from previous continental/oceanic movement and the theory of plate tectonics. Students will turn in their predictions for evaluation.

Evaluation

World Predictions Assignment Checklist	
Students create an image depicting what the world may look like in a million years.	
Students are specific in their descriptions.	
Students cite evidence supporting their claims.	
Students use the theory of plate tectonics in their predictions.	