

Pre-Assessment

**Concept(s)
Addressed**

The Earth has different layers of materials between the core and the crust. Density of different molten materials causes convection currents in the mantle that moves the brittle crust. Continental drift refers to evidence that continents have moved over long periods of time and continue to move. The boundaries of the plates including transform, convergent, and divergent continuously move and change landforms. Plate tectonics is the organizing theory of all Earth Science.

Time

20 minutes

Materials

Individual
Prompt

Advance**preparation**

1. Duplicate prompt for each student

Teacher Note: The pre-assessment is designed to provide patterns in student understanding through revealing what students know in open ended prompts and defining important concept ideas. These patterns are used to provide interventions in areas of greatest need.

Procedure:

1. Tell students they will have an opportunity to share what they understand about the structure of the Earth and movement of the Earth's crust.
2. Distribute the prompt to each student and ask him/her to do his/her best work.

Name _____

Grade Six: Plate Tectonics

Pre-Assessment

Directions: Complete the following questions using drawings and words.

1. What is under the surface of the earth? Explain how you know.

2. How are different landforms such as mountains made?

Directions: Complete the table.

Science Word	Do you know the meaning of the	It means.....
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	word? Yes/No	
Convection		
Density		
Plate Tectonics		
Convergent Boundaries		
Divergent Boundaries		
Transform Boundary		
Continental Drift		

Grade Six: Plate Tectonics

Pre-Assessment

Expected student Responses for a High Level Response

Directions: Complete the following questions using drawings and words.

1. What is under the surface of the earth? Explain how you know.

Drawing shows approximate scale of core and may or may not include outer and inner core. Crust and upper layer of lithosphere may be indicated but not necessarily named. A region of the mantle would be between the crust and the core. It may or may not be named.

Explanations of how students know may indicate prior knowledge from another grade level, television, discussions, and diagrams in books.

2. How are different landforms such as mountains made?

Plates are colliding and pushing up the land at the plate boundary. Answer may or may not include convergent boundary as the location of high mountains.

Expected Student Response: If the student says yes, is the definition appropriate.

Science Word	Do you know the meaning of the word? Yes/No	It means..... <i>(Note: Students would not be expected to have these responses. This pre-assessment is administered to students so that we can have anchor paper responses.)</i>
Convection		<i>The transfer of thermal energy by the mass movement of particles in a liquid or gas</i>
Density		<i>The amount of mass per unit volume of a substance</i>
Plate Tectonics		<i>A geological model in which the Earth's crust and uppermost mantle are divided into a number of more or less rigid segments called plates</i>
Convergent Boundaries		<i>Where tectonic plates meet and collide or push against each other</i>
Divergent Boundaries		<i>Where tectonic plates are spreading or separating from each other</i>
Transform Boundary		<i>Where tectonic plates slide past each other</i>
Continental Drift		<i>The slow movement of the earth's landmasses (continental plates) by the pressure that shifts them across the underlying molten material</i>