Name _____ Date _____ Class _____

Lesson Outline

LESSON 2

Landforms at Plate Boundaries

A. Landforms Created by Plate Motion

1. Massive, slow-moving tectonic plates have so much _____ that they can form tall _____ and deep _____.

2. Three types of stresses—_____, _____, and _____—each produce a different type of landform.

B. Landforms Created by Compression

1. The largest landforms on Earth are produced by _____ at _____ plate boundaries.

2. If two _____ plates collide, tall mountains, like the Himalayas, can form.

a. The resulting _____ ranges form in stages, slowly, over millions of years.

b. Although plates move _____, the collision causes the crust to move _____ as well.

3. When two plates collide, one can go under the other and be forced into the mantle in a process called _____.

a. A deep _____ forms where the two plates meet.

b. _____ trenches are deep, underwater created by one plate subducting under another plate at a convergent plate boundary.

4. _____ mountains can form in the ocean where plates converge and one plate subducts under another one.

a. The volcanoes form _____ about 100 kilometers in distance from where the two plates meet.

b. A(n) _____ is the curved line of volcanic islands that forms parallel to a plate boundary.

C. Landforms Created by Tension

1. Where plates move apart, _____ stresses stretch Earth's crust.

Lesson Outline continued

2. At _____ boundaries, oceanic plates move apart, and there are _____ stresses that cause crust to spread apart.

a. As tension stresses cause oceanic crust to spread apart, hot rock from the _____ rises.

b. The hot _____ rises and pushes the seafloor upward, making a long, tall _____ on the bottom of the _____, called a(n) _____.

3. When divergent boundaries occur within a(n) _____, they can form _____, or enormous splits in Earth's crust.

a. Tension stresses in the cold upper part of the crust create _____.

b. At these faults, large blocks of crust move downward, creating a _____ between two ridges.

D. Landforms Created by Shear Stresses

1. Shear stresses at _____ boundaries produce _____ where plates slide past one another horizontally.

2. Faults that form where _____ plates slide horizontally past each other are called _____.

a. Segments of _____ ridges are sometimes separated by transform _____.

b. The transform faults are _____ to the mid-ocean ridges, and they get _____ as the plates move.

c. As _____ transform faults move farther away from the mid-ocean ridge, _____ transform faults form.

3. A(n) _____ fault that can be seen at Earth's surface is the San Andreas Fault in California.

a. Many transform faults that are part of this fault system cannot be seen on the _____ of Earth, but instead are _____.

b. A(n) _____ is an area of many fractured pieces of crust that lie along a large fault.

Name _____ Date _____ Class _____

Content Practice A

LESSON 2

Landforms at Plate Boundaries

Directions: *Complete the chart by writing the correct term from the word bank on the lines provided. Each term is used only once.*

compression	**continental rift**	**convergent**	**mid-ocean ridge**
ocean trench	**pull apart**	**rift valley**	**tension**
transform	**transform fault**	**volcanic arc**	

	Type of Stress	Type of Plate Boundary	What Happens to the Plates?	What Landforms Can Be Created?
1.	_____	_____	come together and collide	tall mountain _____ _____
2.	_____	divergent	_____	new sea _____ _____ _____
3.	shear	_____	slide past each other horizontally	fault zone