

NAME _____ Date _____ Period _____

Investigating Crustal Boundaries Plate Tectonics

INTRODUCTION: According to plate tectonic theory, Earth's surface is divided into moving plates. A plate is a large, mobile slab of rock that is part of Earth's rigid outer shell known as the lithosphere. This includes rocks of the crust and upper mantle.

The boundaries between plates are of three general types. The boundary between plates that are moving apart is termed **diverging** while a boundary between plates that are moving toward each other is called **converging**. A **transform** boundary is found where two plates are moving horizontally past one another.

OBJECTIVE: You will distinguish between diverging, converging and transform tectonic plate boundaries.

VOCABULARY:

lithosphere:

transform plate boundary:

diverging plate boundary:

subduction:

converging plate boundary:

Andes Mountains:

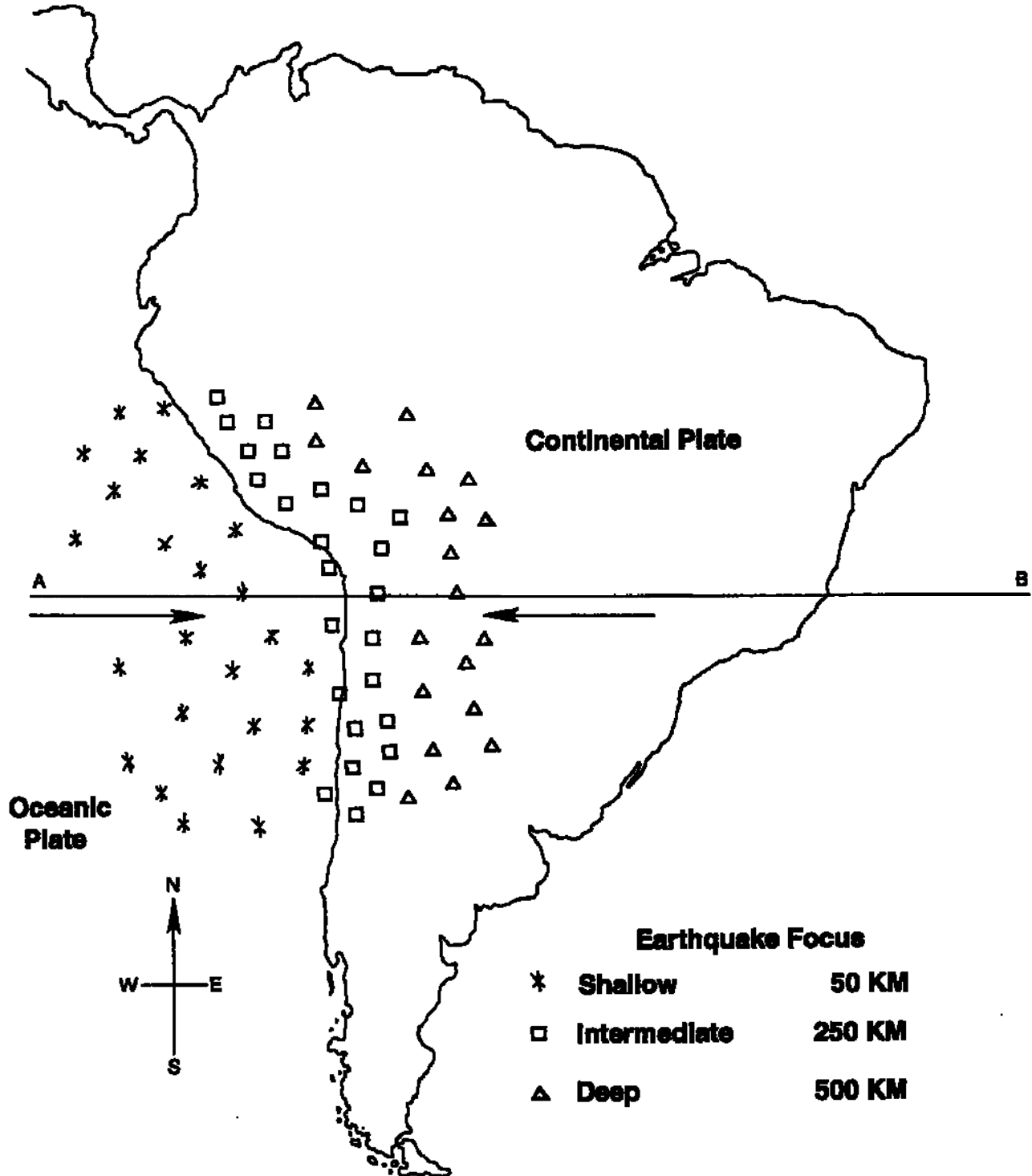
PROCEDURE A: Fill in the data chart below using the "Tectonic Plates" map in the Appendix. Place a check in the appropriate box identifying the type of plate boundary.

PLATE BOUNDARIES CHART

LOCATION	TYPE OF PLATE BOUNDARY		
	DIVERGENT	CONVERGENT	TRANSFORM
Mid-Atlantic Ridge			
Aleutian Trench			
W. Coast of South America			
Southeast-Indian Ridge			
Boundary between Pacific Plate and Australian Plate			
West Coast of Southern California			

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Investigating Crustal Boundaries Plate Tectonics **SOUTH AMERICAN EARTHQUAKES**



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Investigating Crustal Boundaries Plate Tectonics Summing Up

1. Using the map on page 2, plot the depth of the points from the “A – B” on the graph on the last page. Connect the points with a smooth line.

2. Based on your answer to Question 1, what appears to happen as the ocean plate to the west collides with the continental plate to the east?

3. Referring to a world map, what surface feature on the west coast of South America has apparently formed as a result of collision of the two crustal plates?

4. According to your Data Chart and the Tectonic Plates map, where are most divergent plate boundaries found?

5. what type of plate boundary is the San Andreas fault?

6. At which type of plate boundary would a subduction zone be found?

7. At which type of plate boundary is new oceanic crust created?

8. Oceanic trenches are associated with which type of plate boundary?

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Cross Section of South America

