

**EARTH AND LIFE SCIENCE LABORATORY ACTIVITY SHEET**  
**Lesson 7 Build**

Name: \_\_\_\_\_

Grade and Section: \_\_\_\_\_

For this lesson's *Build* activity, you will be interpreting two more maps made by PHIVOLCS. However, this time, these maps show the trenches, active faults, and volcanoes of the Philippines.

*Procedure:*

1. Through an internet browser on your desktop or laptop computer, visit the page *Volcanoes of the Philippines* using the following URL:

<https://www.phivolcs.dost.gov.ph/index.php/volcano-hazard/volcanoes-of-the-philippines>

2. Download the *Active and Potentially Active Volcanoes in the Philippines* map. Use the zoom feature on your computer or smartphone to inspect the details of the map more closely, then identify the following:

3. The Manila Trench marks where the oceanic crust of the Eurasian plate subducts beneath the crustal blocks that comprise the island of Luzon. Based on what the map shows, list six active and potentially active volcanoes that formed as the result of the subduction of oceanic crust in this area.

- |            |           |
|------------|-----------|
| i. _____   | iv. _____ |
| ii. _____  | v. _____  |
| iii. _____ | vi. _____ |

4. What geomorphic feature marks the subduction of the Philippine Sea Plate beneath the crustal blocks of the Philippine Mobile Belt along its eastern portion? \_\_\_\_\_

5. List the *active* volcanoes that formed as a result of the subduction mentioned in Question No. 4.

Luzon	Visayas	Mindanao
i. _____ ii. _____ iii. _____ iv. _____	i. _____ ii. _____	i. _____  Central Mindanao Volcanic Arc • Musuan • Ragang • Makaturing

6. Compare and contrast. Subduction along what geomorphic feature produced Mt. Matutum and Parker? How about Mt. Bud Dajo, what subduction-related geomorphic feature is it associated with?

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7. Based on the *Active Faults and Trenches* map and the *FaultFinder* app of PHIVOLCS, explain what phenomenon could have produced the current shape and orientation of the island of Leyte.

8. Identify the tectonic geomorphic features are found in or near the following places:

<b>Location</b>	<b>Feature</b>
Offshore Eastern Luzon	
Offshore South of Bondoc Peninsula, Quezon Province	
Offshore Western Panay Island	

9. Get a ruler and measure the length of the scale bar on the upper right of the Active Faults and Trenches map.

a. What is its length in millimeters? \_\_\_\_\_

10. The value you measured in STEP 9 is known as the “map length.” Its measurement corresponds exactly to 300 kilometers in real life. This is because the entire length of the scale bar represents 300 kilometers of distance.

a. Convert 300 kilometers into millimeters: \_\_\_\_\_

b. Divide the number you obtained in STEP 10a by the length you measured in STEP 9. The quotient you would obtain is known as the scale factor. You will use this number later.

\_\_\_\_\_

11. Using a ruler, measure the map length of the following faults, in millimeters:

<b>Fault</b>	<b>Map length</b>
West Panay Fault	
Philippine Fault (PF) Masbate Segment	
Central Marinduque Fault	

12. Multiply the map length of each fault by the scale factor you obtained in STEP 10b. Then, convert each length to kilometers to determine their actual length:

<b>Fault</b>	<b>Actual length</b>
West Panay Fault	
Philippine Fault (PF) Masbate Segment	
Central Marinduque Fault	

13. In both maps made by PHIVOLCS, there are a few island provinces that do not have active or potentially volcanoes *and* faults. What island provinces are these?

- a. \_\_\_\_\_
- b. \_\_\_\_\_
- c. Siquijor
- d. Tawi-Tawi