

NAME: _____ PERIOD: _____ DATE: _____

LAB PARTNERS: _____ LAB #15

WORLD WIDE GEOLOGIC ACTIVITY

INTRODUCTION

Studies of tectonics have shown that crustal activities are occurring worldwide. Earthquakes, volcanoes, and mountains do not occur randomly. There are special zones in which they occur. In this lab you will look for the relationships that exist between the locations of these crustal activities.

OBJECTIVES

When completed students will have:

1. Plotted the latitude and longitude of earthquake epicenters and volcanic eruptions.
2. Identified and compared the locations of earthquake and volcanic activity with that of mountain ranges.
3. Identify areas (or zones) on the Earth's surface where earthquakes, volcanoes, and mountain ranges occur.

MATERIALS

Color pencils

APPROXIMATE TIME 1-2 Periods

PROCEDURE

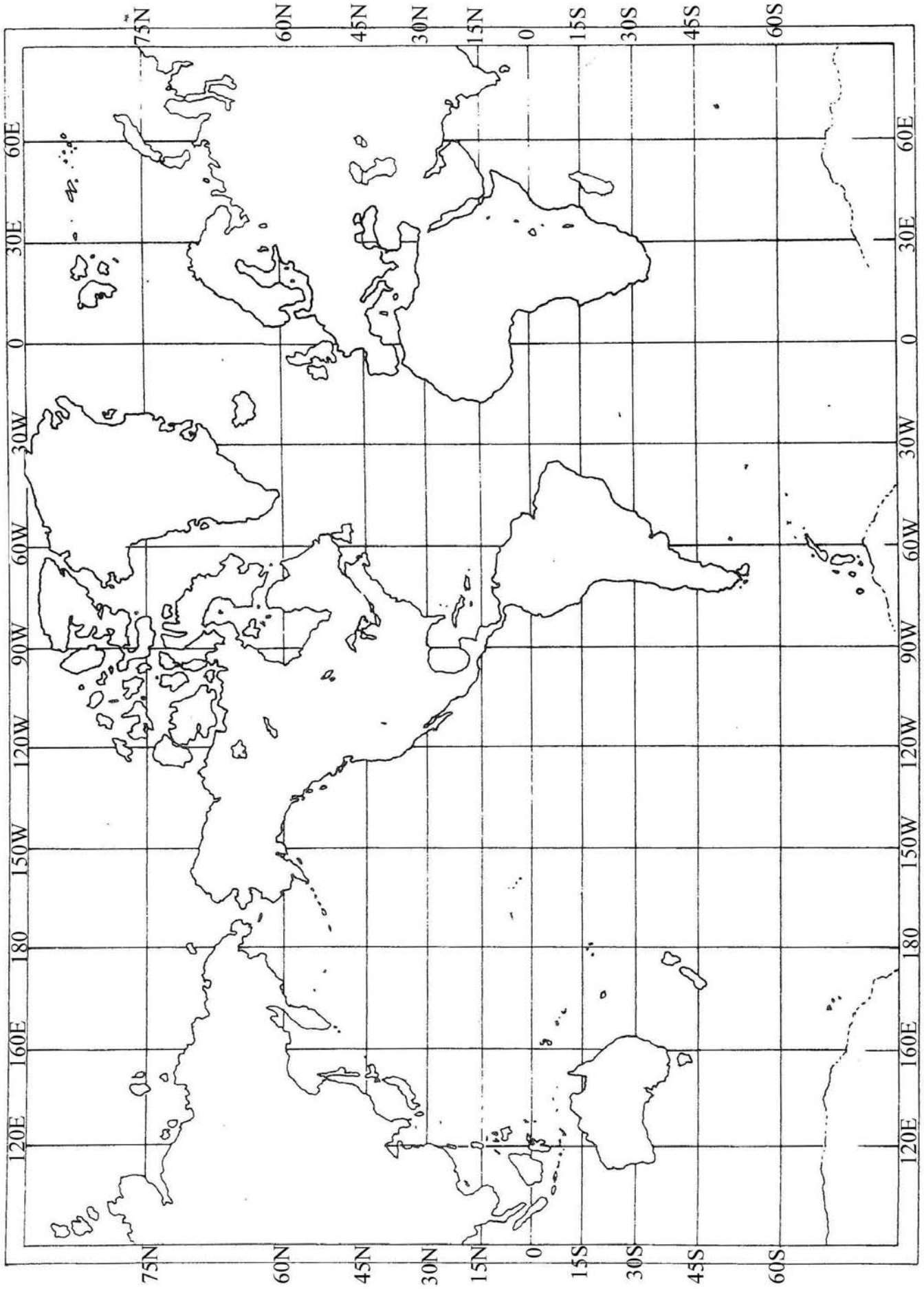
1. Referring to the earthquake data on page 2, mark the epicenters on the world map provided by placing an **X** in each area where earthquakes have occurred. Use a **blue or green** pencil.
2. Referring to the volcano data on page 2, mark the areas with active volcanoes by placing small **circles** in the regions where they occur. Use a **red or orange** pencil.
3. Referring to the world maps in the appendix of your textbook, indicate on your map the regions where mountain ranges occur by placing small **triangles** in the appropriate areas. Yours should include at least one mountain range on each continent as well as the mountain ranges located under the oceans. Include Appalachians, Rockies, Andes, Alps, Atlas, Ural, and Himalayans. Use a **brown** pencil.
4. Answer lab questions # 1 through 7 using complete sentences.

EARTHQUAKES

	LATITUDE	LONGITUDE
1.	60° N	152° W
2.	45° N	125° W
3.	35° N	35° W
4.	30° N	115° W
5.	30° N	60° E
6.	20° N	75° W
7.	50° N	158° E
8.	40° N	145° E
9.	15° N	100° E
10.	15° N	105° W
11.	10° S	105° E
12.	5° S	150° E
13.	0°	80° W
14.	25° S	75° W
15.	50° S	75° W
16.	40° N	120° W
17.	5° S	110° E
18.	4° S	77° W
19.	23° N	85° E
20.	15° S	120° E
21.	5° N	35° E
22.	60° N	15° W
23.	45° N	30° W
24.	0°	15° W
25.	3° N	128° W

VOLCANOES

	LATITUDE	LONGITUDE
1.	60° N	150° W
2.	45° N	120° W
3.	20° N	105° W
4.	0°	75° W
5.	65° N	15° W
6.	40° N	30° W
7.	17° N	25° W
8.	45° N	15° E
9.	30° N	60° E
10.	55° N	160° E
11.	40° N	145° E
12.	5° S	155° E
13.	10° S	120° E
14.	5° S	105° E
15.	15° S	60° E
16.	30° S	70° W
17.	55° S	25° W
18.	23° S	170° E
19.	10° S	20° W
20.	10° N	125° E
21.	7° N	125° E
22.	62° N	150° W
23.	60° N	148° W
24.	35° S	175° E
25.	5° S	152° E



WORLD-WIDE CRUSTAL ACTIVITY

LABORATORY QUESTIONS

1. Your world map should show that earthquakes do not occur at random locations. Describe two locations where you find a pattern of earthquake activity.
2. By referring to your map compare how the locations of earthquakes are related to the locations of volcanoes and mountains.
3. What regions of North and South America show the greatest crustal activity?
4. According *to your map*, what is the probability of having either a major earthquake or having a volcano occur on Long Island? *Explain* your answer.
5. Explain what may cause movement along plate boundaries.
6. List the names of the three major types of plate boundaries.
7. On what plate can each of the following be found?
Long Island _____ Hawaii _____
Madagascar _____ Sweden _____