

Name \_\_\_\_\_ Class Period \_\_\_\_\_  
Date \_\_\_\_\_

## Unit 2 Lab – Gilligan’s Island

**Problem:** What is a map?  
How are topographic maps different from other maps?  
How do contour lines indicate steep and gentle slopes.

**Purpose:** After completing this investigation you should be able to:

- ❖ match actual landforms with topographic maps.
- ❖ point out different elevations and gradients (slopes).
- ❖ tell what an isoline is.

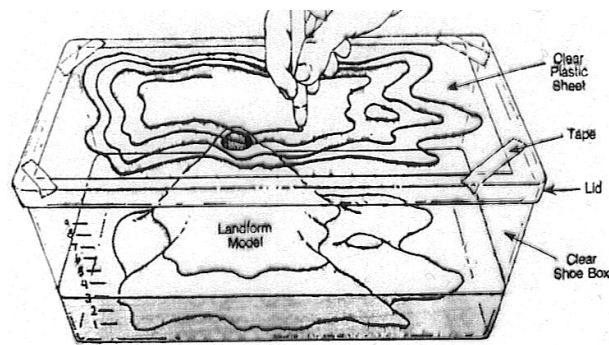
**Materials:**

|                            |               |
|----------------------------|---------------|
| plastic shoe box           | metric ruler  |
| model of Gilligan’s Island | tracing paper |
| clear plastic sheet        | 500 ml beaker |
| water-based marker         | bucket        |

**Vocabulary:**

- ❖ topography: \_\_\_\_\_  
\_\_\_\_\_
- ❖ isoline: \_\_\_\_\_  
\_\_\_\_\_
- ❖ contour line: \_\_\_\_\_  
\_\_\_\_\_
- ❖ gradient (slope): \_\_\_\_\_  
\_\_\_\_\_

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### Procedure:

1. On one end of the plastic shoe box, notice that there is a band with marks from the bottom to the top showing the elevation at 1 cm intervals. The bottom of the box will be zero (sea level).
2. Place the model of Gilligan's Island in the box using rolled tape to anchor the island. (Some of the boxes have the island permanently attached to the shoe box.)
3. **FILL THE BOX WITH WATER UP TO THE 1 CM MARK. ADD ONE DROP OF FOOD COLORING.**
4. Place the lid on the box and tape the plastic to the top of the lid. **DO NOT TAPE THE LID TO THE BOX!**
5. Looking straight down through the lid, draw a line on the plastic sheet to represent the water line on the model.
6. Remove the lid, add water up to the 2 cm mark and repeat the drawing of the line.
7. Continue until the model is completely covered with water/
8. Carefully clean up. **DO NOT CARRY A FULL BOX OF WATER!** Empty out some of the water using the beaker before moving the box. Put waste water in the BUCKET. Ask you teacher to help empty the bucket.
9. Take the plastic map off the lid and trace the map on white paper.

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**Activity & Questions:**

1. **Label** the map with the **distance scale**: 1 cm = 1 km
2. **Label** the narrow volcano end “North”.
3. What is the longest N→S measure of Gilligan’s Island?
4. What is the name for the lines you have drawn on your map?  
\_\_\_\_\_
5. The Contour Interval (CI) = 250 meters.  
**Label** all the contour lines with their correct elevation.
6. What is the highest elevation on this map? Ans: \_\_\_\_\_
7. What general statement can be made about the closeness of contour lines and the steepness of the slope.  
\_\_\_\_\_  
\_\_\_\_\_
8. **Label** on the map the location where there might be a stream. **Draw** the stream. Why did you pick this location?  
\_\_\_\_\_  
\_\_\_\_\_
9. What is the slope (gradient) of the north edge of the map from the tip of the volcano to the north edge? **SHOW ALL YOUR WORK!**

**WORK**

**RULES:** Formula  
Substitution  
Solution  
Units

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Conclusions: