Unit Activities: Isoline Maps

Name: **Block:**

Unit Objectives

Draw isolines on a field map.
Create topographic profiles.
Interpret topographic maps.
Calculate the gradient of a property on a field map.

Notes

1_____ Isoline Maps
2_____ Topographic Maps A
3_____ Topographic Maps B
4_____ Gradient
5_____ Topographic Profiles

Base Assignments

(underlined assignments are mandatory)

----------**Assignment 1: Due / / ----------**

6_____ Lab: Drawing Isolines: (5 points- lab)

----------**Assignment 2: Due / / ----------**

Choose 5 points

7_____ Go to the Mapping Earth Unit on the class web site and follow the Current US Air Pressures or Current US Temperatures links in order to get the current US pressure or temperature map. Draw the isobars using an interval of 4mb or the isotherms using an interval of 10^{o} F: (5 points- lab) challenging! You may receive extra credit for this assignment.

8_____ Complete "Additional Isoline Maps": (5 points- lab)

9_____ Make an Isotherm Map: (5 points- lab) measure the temperature from at least 10 points in the classroom or a room at home. Record the temperatures on a map of the room and draw isotherms using an interval of 1^{o} F. Open a window to create a temperature gradient. See the teacher for a thermometer.

----------**Assignment 3: Due / / ----------**

10_____ Construct a topographic map from a 3-D model: (5 points- lab)

----------**Assignment 4: Due / / ----------**

Choose 5 points

11_____ Rosendale Quadrangle Questions: (5 points- lab)

----------**Assignment 5: Due / / ----------**

Choose 6 points

(oral defense required)

12_____ Book Work: (3 points) read Topographic Maps on Pp. 33-36 and complete study guide 2-2.

13_____ Flash Cards: (3 points) create flash cards using the following words- contour interval, contour line, gradient, topographic profile, depression contours, isolines, scale, elevation, field value. The flash cards should be created out of index cards and include the word and definition on one side and a neat color drawing or diagram on the other side of the card.

14_____ Concept Map: (3 points) create a map using the following words- contour interval, contour line, gradient, topographic profile, maps, depression contours, isolines, scale, elevation, field value

15_____ Web Site Activity: (3 points) go to the Mapping Earth Unit on the class web site and follow the "How Are Landforms Represented on Flat Maps? link. Complete the questions found on the worksheet.

----------**Assignment 6: Due / / ----------**

Choose 5 points

16_____ Build a Geoblox topographic landform model (5 points- lab) using appropriate colors.

17_____ Fantasy Island: (5 points- lab)

----------**Assignment 7: Due / / ----------**

18_____ Worksheet- Gradient Review (3 points)

----------**Assignment 8: Due / / ----------**

19_____ Vertical Exaggeration: (3 points- lab)