

ACTIVITY 10.1 Introduction to Structural Geology

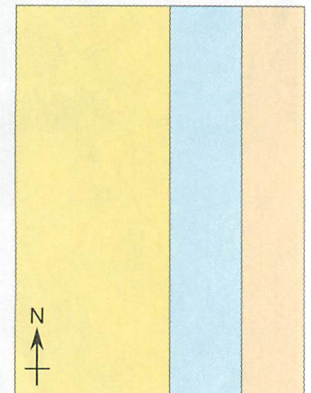
Name: _____ Course/Section: _____

Materials: Pencil, pen; protractor and ruler from GeoTools sheets at the back of the manual.

A. This is a copy of the geologic map from Figure 10.1.

1. Add symbols (Figure 10.4) to show the attitude (strike and dip) of the formations.
2. Notice the abrupt change in dip at the contact between the Blue Fm and Yellow Fm Figure 10.1. This contact could be at least two different kinds of geologic structures. What are they?

3. If you could see this contact in the field, and gather more evidence of exactly what kind of structure it is, then what evidence would you look for and how would you use it to decide which of the two structures is actually present at the contact?

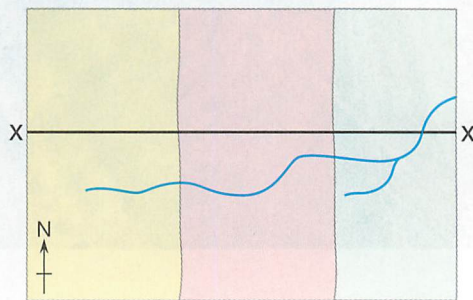


B. For each map below, record the strike of the formations and their contacts. Then use the Rule of Vs (Figure 10.2) to determine the dip direction and sketch formation contacts on the geologic cross section (Figure 10.8, steps 1 and 2).

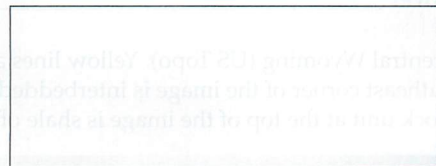


Hint: Cut a V-shaped notch into the top edge of a 3 x 5 card. Hold card vertically and look down on edge. See Vs at different dips of the card.

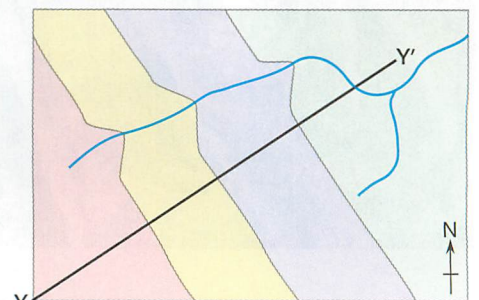
1. Strike: _____



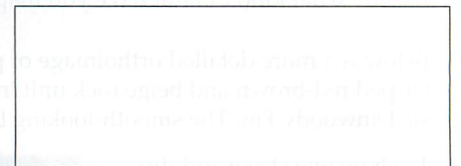
X X'



2. Strike: _____



Y Y'



C. This is an aerial photograph taken from directly above the landscape. The view is 1 km wide.

1. Circle a V-shaped notch.
2. Add a strike and dip symbol to one of the flatirons.
3. What is the strike: _____
4. What is the dip direction: _____



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