

EXERCISE 21

Name _____
Section _____

Date _____

Geologic Structures on Block Diagrams, Geologic Symbols, and Relative Ages of Formations

- Complete the four block diagrams in figure 5.13. Below each block diagram, print the name of one or more of the geologic structures shown. Remember that the numbers on the map indicate the relative ages of the formations, with number 1 being the oldest. Assume that the topography in all four diagrams is essentially flat except in diagrams C and D, where a stream cuts across the formational contacts. In these four block diagrams, dip directions in A and B are to be determined by the rule that older beds dip toward younger beds, and in C and D, dip directions are to be determined by the rule of V's.
- On figure 5.8, place a strike and dip symbol at points a, b, c, d, and e on the geologic map and the block diagram. Use a black pencil.
- Figure 5.10 shows two geologic maps. All formations shown there are sedimentary in origin.

- Label each formation with a number indicating its relative age in the sequence of strata. The oldest should be labeled number 1.
 - Draw strike and dip symbols on each map.
- On the geologic maps of figures 5.12A and 5.12B, draw the appropriate geologic symbol that shows the attitude of each of the three formations, and show by numbers the relative age of each.
 - Why is it impossible to tell the relative ages of the formations shown in figure 5.12C without reference to figures 5.12A or 5.12B?

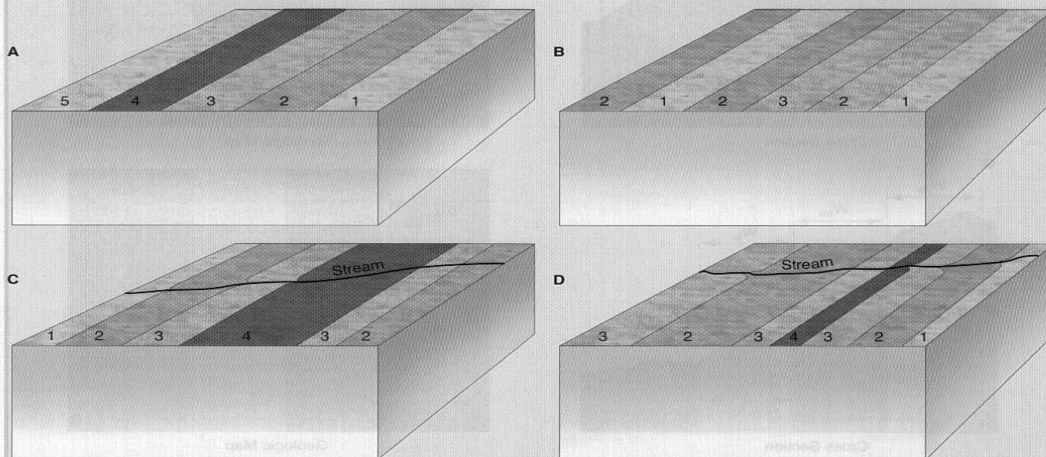


Figure 5.13
Block diagrams for use in Exercise 21, question 1.