

EXERCISE 5

Name _____
Section _____

Date _____

Constructing a Columnar Section from a Geologic Cross Section

Figure 2.9 is a schematic geologic cross section based on the mapping of different outcrops from several localities in a geographic area covering about 10 square miles. Formations shown by the same color and symbols are the same age. Study the cross section and complete the work called for in questions 1 and 2.

1. Construct a columnar section from this cross section using the numbered lines at the right of figure 2.9 to record your interpretation. Indicate the name of a rock formation (e.g., shale, granite, alluvium) or an unconformity in its appropriate position in the section as determined from the adjacent geologic

cross section. Igneous rock masses of the same age should be listed on the same line. Remember that the oldest unit is listed at the bottom.

2. Reexamine figure 2.9. In this simplified geologic cross section, no evidence of metamorphic activity has been shown. Recall the earlier discussion of types of metamorphism, metamorphic grade, and the classification of metamorphic rocks. Had metamorphic rocks been included, indicate what types you would expect to find, and why (see pages 45–46).

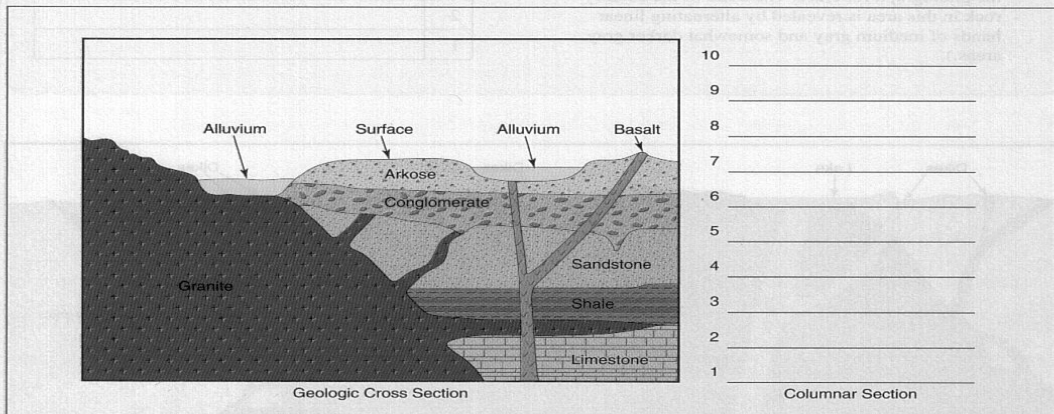


Figure 2.9 Geologic cross section and uncompleted columnar section. The names of the rock units and any unconformities are to be listed in the appropriate boxes of the columnar section as called for in Exercise 5.