

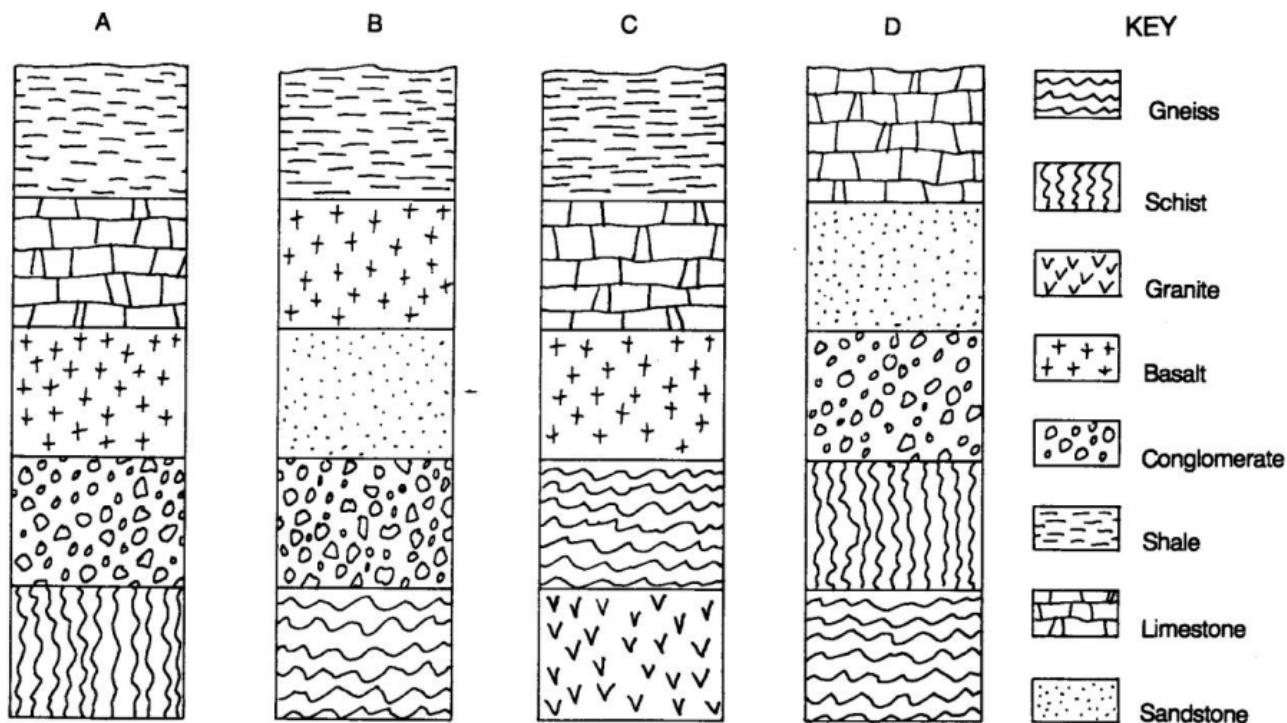
Geologists can determine the relative ages of the rock layers in a rock formation. But how do they determine whether the rocks or geologic events occurring at one location are of the same age as those at another location? The process of showing that rocks or geologic events occurring at different locations are of the same age is called *correlation*.

Geologists have developed a system for correlating rocks by looking for similarities in composition and rock layer sequences at different locations. Certain fossils, called *index fossils*, **existed for a very short time and were distributed over a large geographic area**. They aid the geologist in correlating sedimentary rock layers.

OBJECTIVE: You will construct a geologic history of a region by observing rock layers in different localities.

PROCEDURE A: The first set of four diagrams represent 4 outcrops at different locations.

1. Reconstruct the complete sequence of events. Assume that the oldest rocks are on the bottom and the youngest are on top (i.e. Law of Superposition)
2. Draw in the layers in the appropriate column of the Report Sheet.



PROCEDURE A

DISCUSSION QUESTIONS:

1. Why do you think some rock layers are missing from the sequence in some outcrops?

2. What does a field geologist look for in rock outcrops to help identify the sequence in different rock layers? What is helpful?
