Geologic Time

ESC 115 Physical Geology

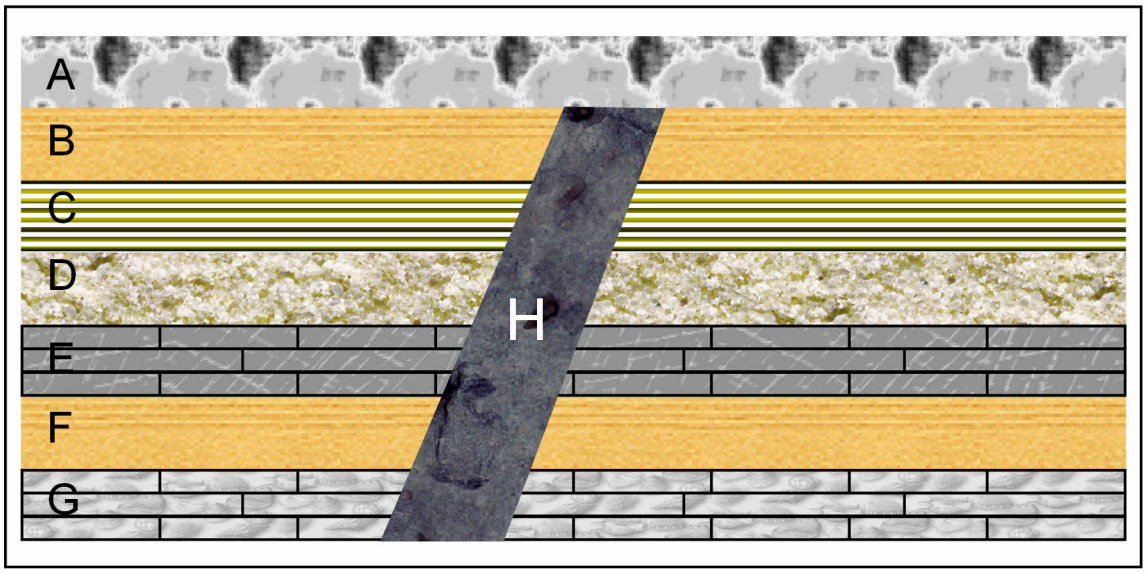
Determining Relative Ages

Familiarize yourself with the following terms: *parent isotope, daughter isotope, relative dating, absolute dating, half-life, and unconformity.* Also be familiar with the following laws and principles:

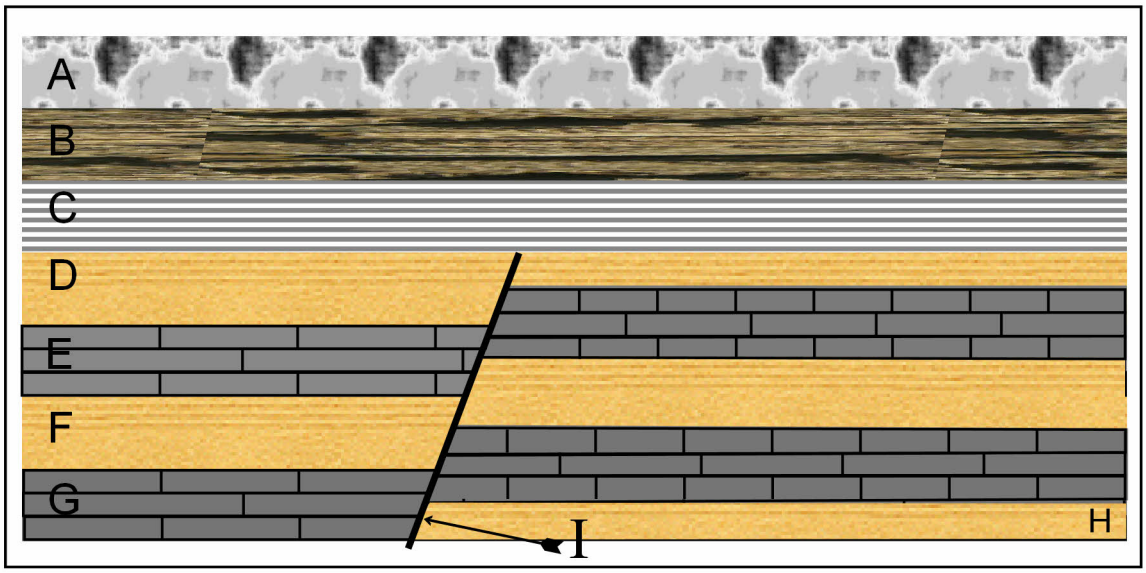
- Law of Original Horizontality
- Law of Superposition
- Law of Inclusions
- Law of Cross-Cutting Relationships
- Principle of Fossil Succession

For the following figures, determine the ordering for youngest to oldest for the layers identified with letters:

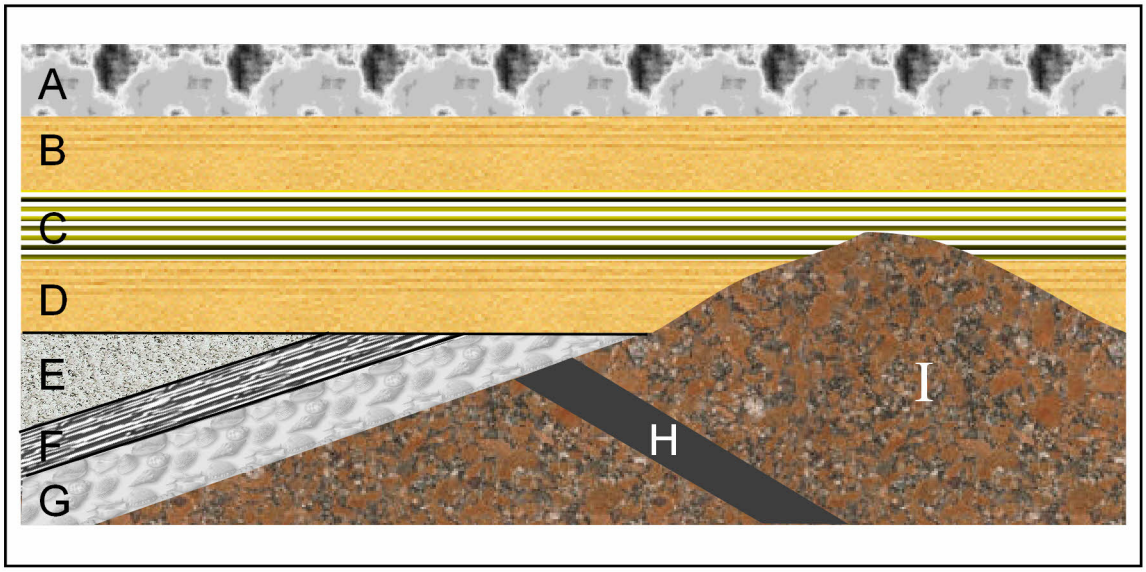
1. _____



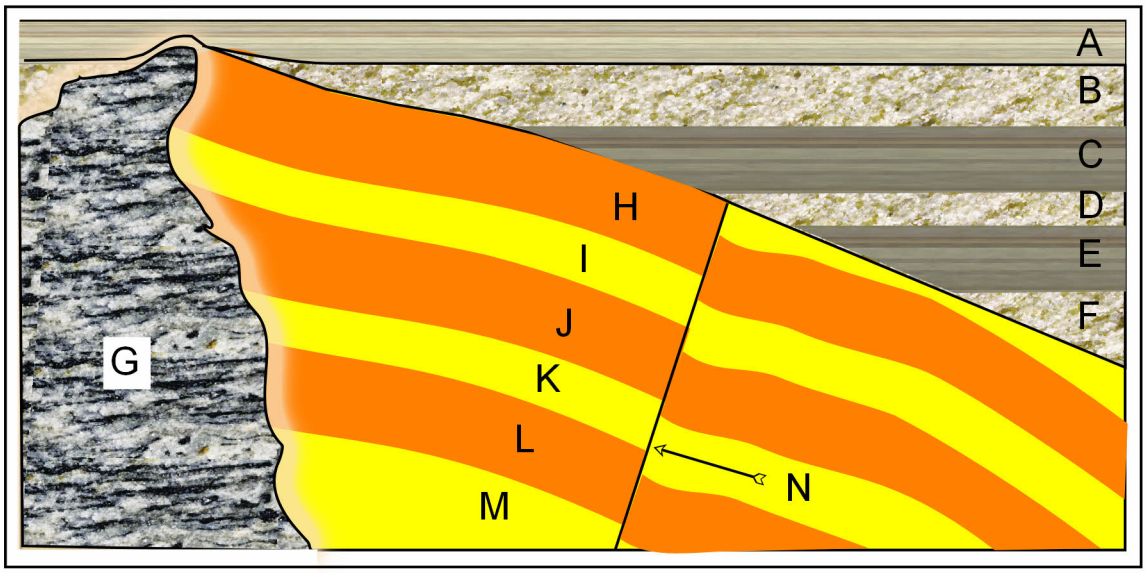
2. _____



3. _____

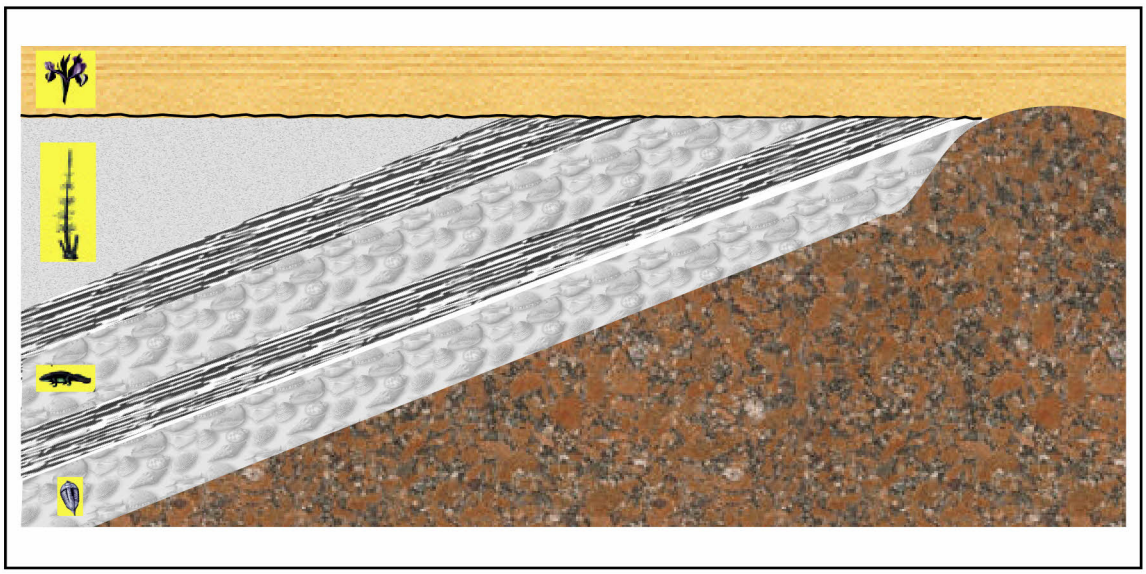


4. _____



5. The following figure shows rocks similar to the distribution of rocks underlying Iowa. It includes fossils to represent the age of the rocks. I'll project a figure to help you with this. What happened during the Mesozoic time period at the location of this figure?

_____



6. I will project a geologic map of the area south of Dubuque. Use it to answer the following questions:

   (a) What is the age of the rocks upon which UD sits. Use your book to determine a fossil that is common to that time period. _____

   _____

   (b) What is the geologic age of the blue formation covering much of the south of the area? _____

   (c) How can you recognize it when you drive south from Dubuque?

   _____

   (d) What is the geologic age of the yellow formation on the map? What does it represent?

   _____