

# Geologic Time

## ESC 115 Physical Geology

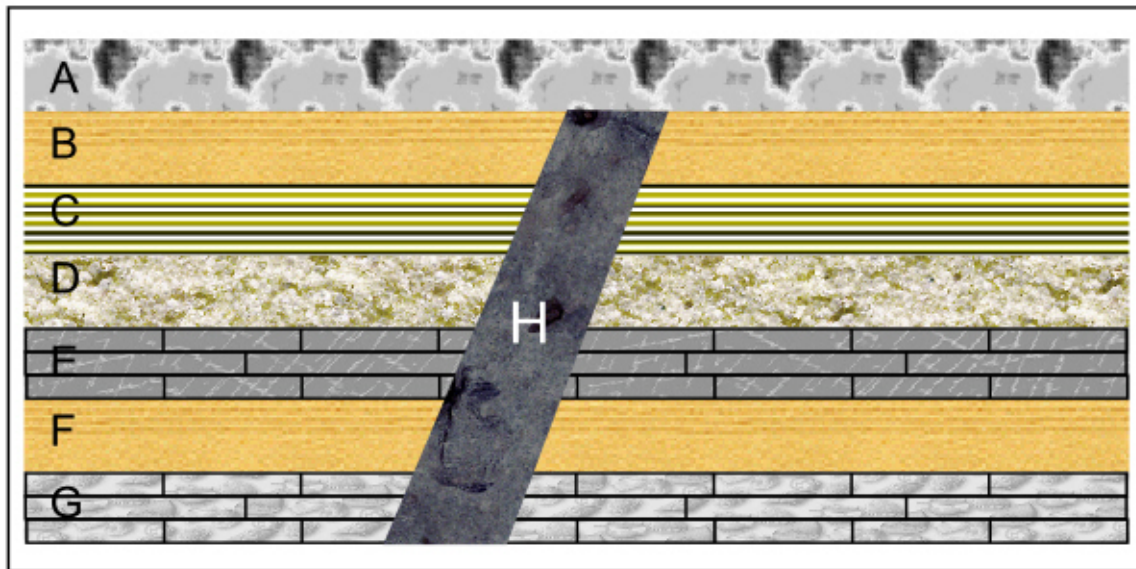
### Determining Relative Ages

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:

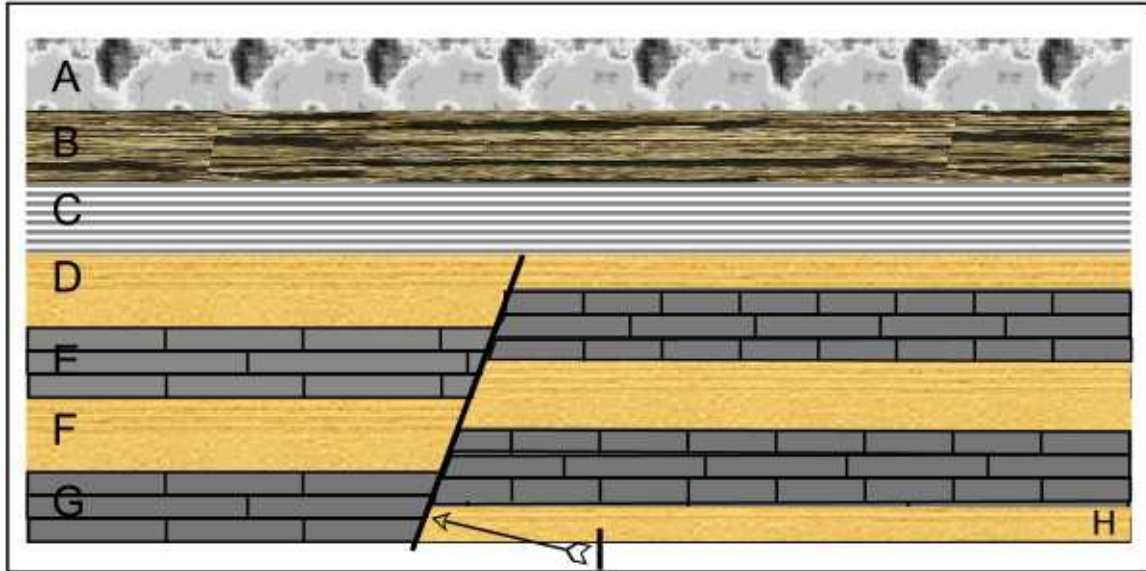
- Law of Original Horizontality
- Law of Superposition
- Law of Inclusions
- Law of Cross-Cutting Relationships
- Principle of Fossil Succession

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

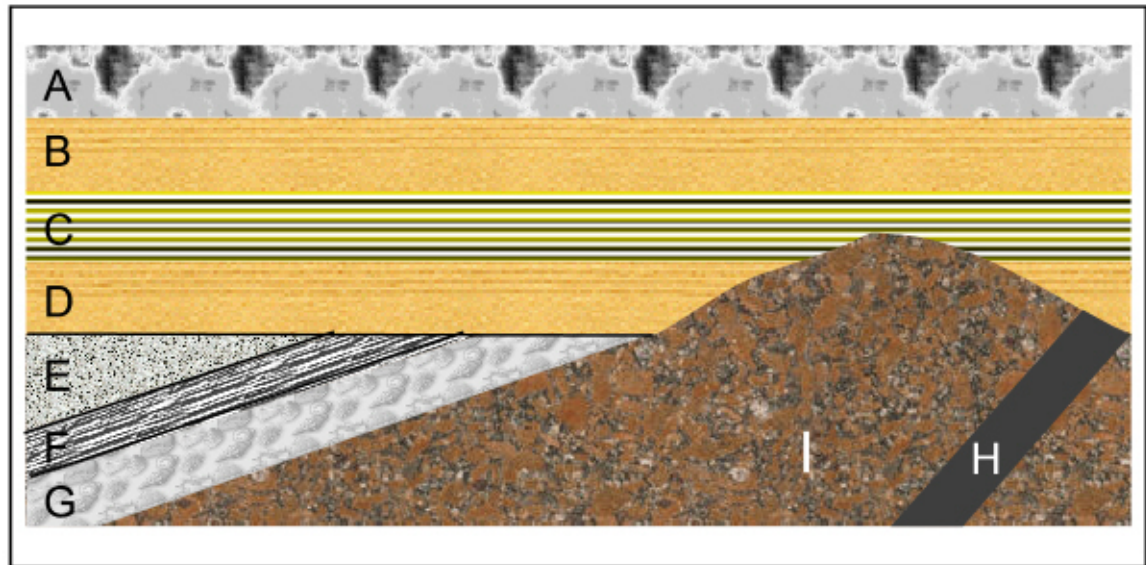
1. \_\_\_\_\_



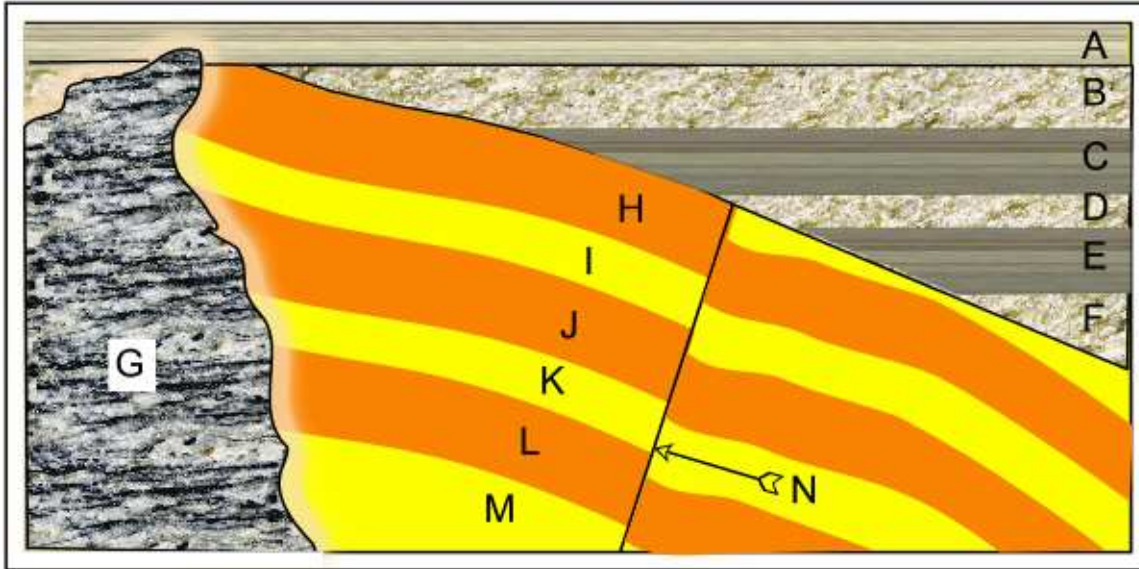
2. \_\_\_\_\_



3. \_\_\_\_\_

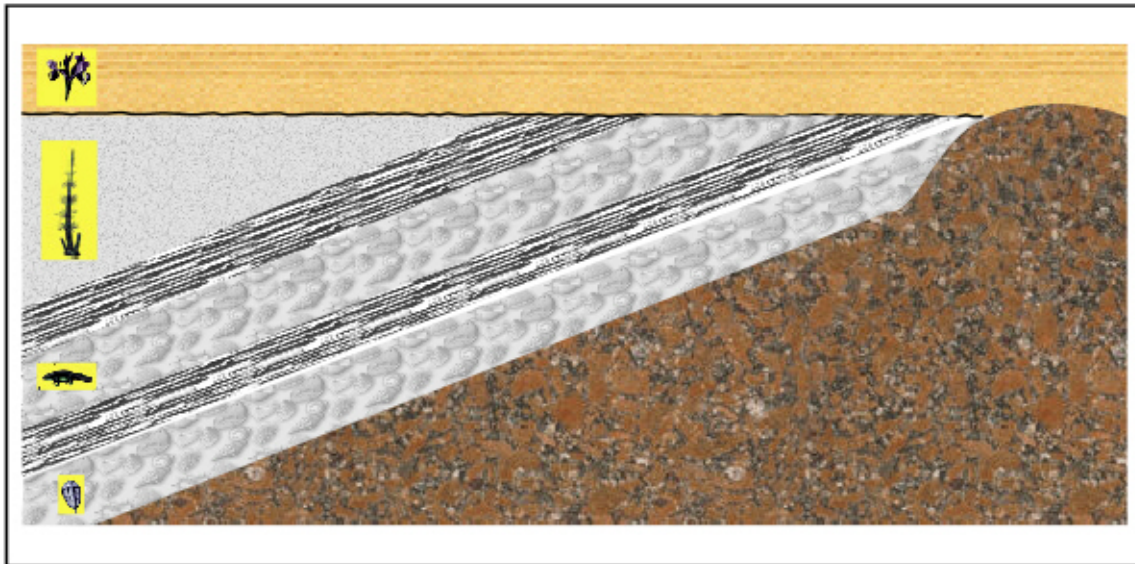


4. \_\_\_\_\_



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?

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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. \_\_\_\_\_

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(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?

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

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