

## Fill in the Blank: Faunal Succession

**Directions:** Write an answer to each of the questions below.

### Questions

1. Explain how faunal succession could be used to trace the development of organisms through time, or in other words, how living things have changed over time.
2. Explain how you think faunal succession could be used to infer the climate of different locations at different points in geologic history.
3. Suppose you encounter a rock outcrop that is deformed and folded so that you cannot use horizontality and superposition to assign relative ages to the layers. How can fossils help you assign relative ages to each rock layer?

### Answers

1. We can trace the changes in an organism as we move from older to younger rock layers. We can see how living things have become more complex with time or see the physical changes to organisms over time. The fossil record is our leading piece of evidence to the theory of evolution, or the understanding that species change through geologic time.
2. If you know what type of environment an organism lived in, then you can infer the climate of the time by the types of fossils that are found. For example, fossils of an animal that thrived in warm tropical seas would indicate a tropical climate, etc.
3. We know that certain organisms only lived during certain times, so their fossils will be found in rocks of a certain age. We know which organisms lived before or after other organisms.