Imagine you are hiking in the woods. As you walk up a steep hill, you find a fossil. It is a mold of many tiny seashells. What would seashells be doing in the middle of the woods?

Most fossils are found in sedimentary rocks. These rocks form on the surface of the earth. They record the processes that have happened on the surface, including life. Scientists are able to arrange fossils according to age. This is called the fossil record. By studying the fossil record, scientists have found that the earth and its life forms have gone through many changes in the past.

Fossils have taught us how and when rock layers have formed. They have also helped scientists learn about life forms that have come and gone. Fossils have even taught us about the climate of the earth long ago.

The Geologic Time Scale is divided into huge blocks of time called eras. Eras are defined by major changes in the fossils found in the sedimentary rock layers that were formed during those time spans.

Some species of organisms can be found on both sides of a time period. Usually, however, fossils found in one rock layer are different than fossils found in the layers above and below. This shows that over time, many organisms have become extinct. In fact, scientists believe that for every organism alive today, at least one hundred others have become extinct.

A common example of extinct organisms is the dinosaurs. Hundreds of different kinds of dinosaurs lived on earth millions of years ago. But we don't see any today. Many other animals such as wooly mammoths and saber-toothed tigers have also become extinct.

By studying the fossil record, scientists have found that many organisms that are alive today have changed over time. For example, fossil evidence has shown that the ancestors of horses were once only the size of dogs.

Fossils can even tell scientists how past life forms looked and behaved. Footprints help them to know how heavy and animal was. The shapes of teeth give clues about what the animal ate.

So, what does the fossil of the seashells found in the woods tell scientists? It tells them that the earth once looked very different than it does now. This fossil indicates that those woods were once covered by an ocean.

The fossil record can also show us how the earth's climate has changed over time. For example, fossils of coral have been found in arctic regions. Coral is an organism that lives in warm water. This tells us that these frigid areas were once much warmer than they are today.
Each time period has left its own impressions in the rock layers. The fossil record has shown how earth and its life forms have affected each other throughout time.

By studying the fossil record, scientists have been able to tell the story of the history of our earth.

Fossils Tell A Story

Questions

1. How are eras defined?

2. Scientists believe that for each organism that exists today, how many more are extinct?
   A. at least one hundred
   B. at least five hundred
   C. at least one thousand

3. Name two animals that have become extinct.

4. What can scientists tell about an animal from a fossilized footprint?
   A. whether or not it is extinct
   B. how much it weighed
   C. what it ate

5. What can scientists tell from a fossil of seashells that was found in the middle of the woods?
   A. The area was once covered by an ocean.
   B. what these organisms ate
   C. The organisms are extinct.

6. What makes scientists think that arctic areas were once warm?
   A. They found wooly mammoths there.
   B. They found fossils of horses there.
   C. They found fossils of coral there.