

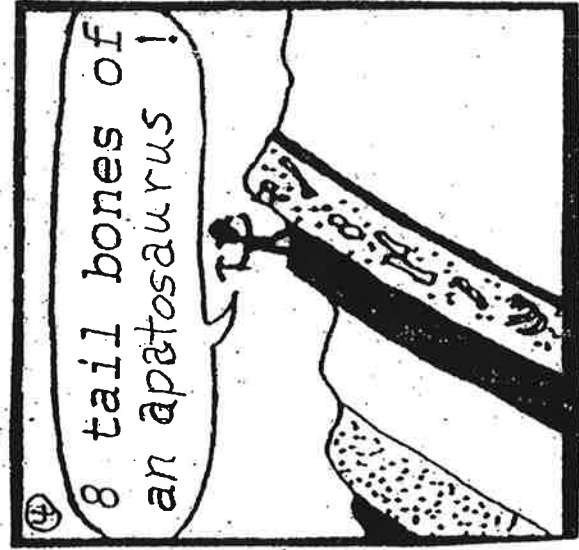
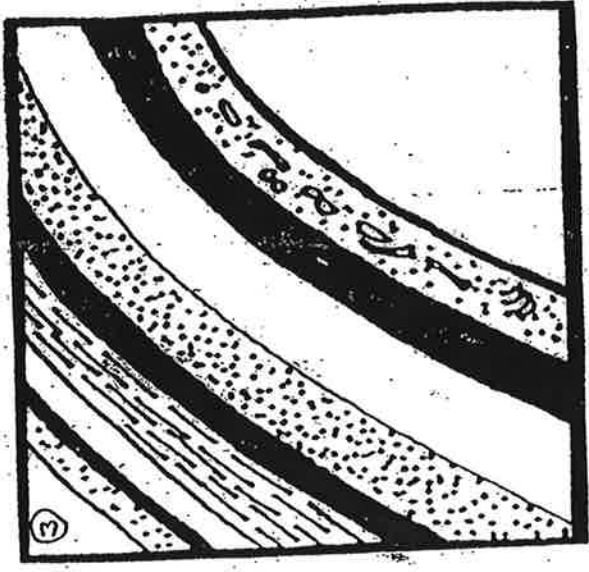
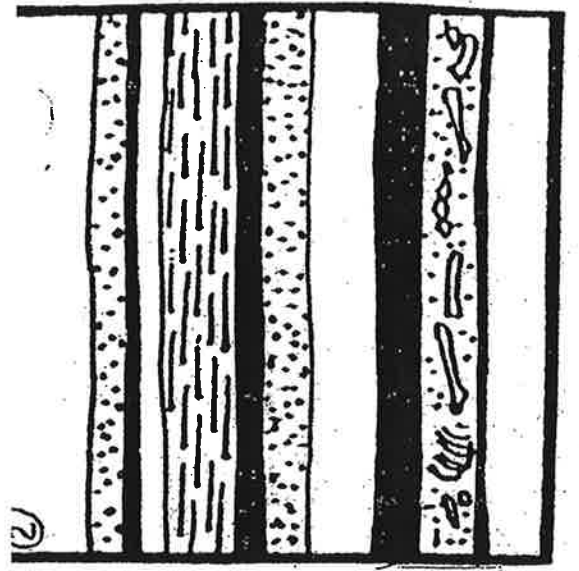
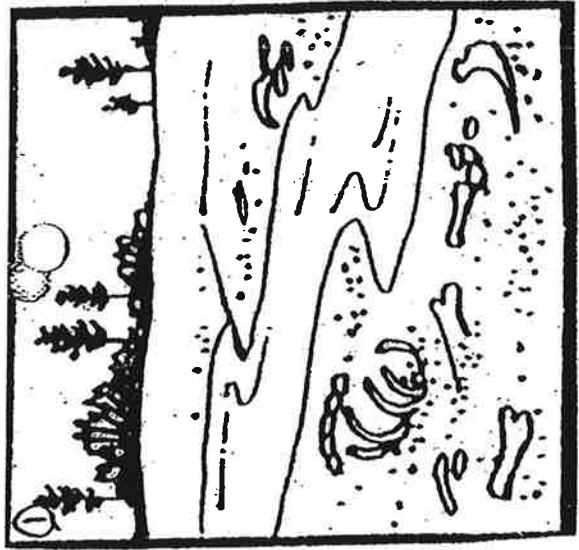
Name _____

Dinosaur National Monument

How Dinosaur Bones are Found



70 ft. (21 m)



1. A river collected and buried thousands of dinosaur bones. 2. More layers of mud and sand covered the bones and hardened into rock. 3. Strong forces bent and tilted the rock layers. 4. Erosion wore away many layers and exposed a few bones. Earl Douglass saw them and dug into the rock to find more. 5. The Quarry protects the bones still in the rock.

DINOSAURS AND DINOSAUR NATIONAL MONUMENT

Dinosaur National Monument protects a large deposit of fossil dinosaur bones--remains of the so-called "terrible lizards" that lived millions of years ago. The dinosaurs weren't really lizards, and most of them weren't even terrible. But some of the first dinosaur fossils ever found were huge bones and teeth, very lizard-like except for their size, and so the idea of monstrous lizards was born. Today, many ideas about dinosaurs are changing, and the fossils at Dinosaur National Monument continue to help us learn more about these fascinating animals.



*A lizard that big must
have been terrible!*

The fossils that give the monument its name were discovered in 1909 by Earl Douglass. He was a paleontologist (a scientist who studies prehistoric life) who worked for the Carnegie Museum of Pittsburgh, Pennsylvania. Douglass knew that some of the rocks in northeastern Utah were the same kind that had produced dinosaur skeletons elsewhere, so he went there hoping to find more bones for the museum. In fact, he found thousands of them, and spent many years digging them up and shipping them to Pittsburgh, where many skeletons are now on display. President Woodrow Wilson heard about the great dinosaur quarry that Douglass had started, and proclaimed the site as Dinosaur National Monument in 1915. Years later, the National Park Service began to develop the quarry as it is today. The rock layer containing the fossil bones forms one wall of the Quarry Visitor Center. On this wall, paleontologists carefully chip away the rock to uncover the bones, but leave them in place. More than two thousand fossil bones can now be seen in this unusual exhibit.

Why are there so many bones in one place? The rock around them is made up of sand and gravel, just like the sand and gravel you might see along a large river. Such a river flowed through this area millions of years ago, and many dinosaurs lived near it. Now and then some of them also died near the river. During rainy seasons, the river would have overflowed its banks--just as many rivers do now--and picked up some of the dead dinosaurs lying nearby. A few of those bodies were whole, but many had probably decayed or been eaten by other animals, so that just the bones were left. The bones and bodies would drift down the river until they got stuck along the banks or on sandbars, and some of them would be buried as the river washed sand and gravel over them. The place that is now the Quarry was probably one such sandbar.

As ages passed, that river vanished, but other rivers and seas came and went, leaving layer after layer of sand and mud that slowly solidified into rock. Even the buried bones became as hard as rock, as water seeping through the ground filled them in with dissolved minerals. Later still, strong vise-like forces began squeezing the Earth's crust in this area, bending and tilting the rock layers--just as the pages of a paperback book will bend if you push on it from opposite sides. But the more that the rocks were pushed upward, the more they were worn down by rain, snow, frost, and wind--layer after layer. Finally, some of the long-buried dinosaur bones began to show up near the top of a steep hill, and Earl Douglass saw them.