

Digging up Dinosaurs

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Have you ever seen dinosaur skeletons in a museum? I have. I visit them all the time. I went again yesterday. I saw APATOSAURUS. I saw CORYTHOSAURUS. I saw IGUANODON and TRICERATOPS. I like to say their names. SCOLOSAURUS was just where I had left it. And TYRANNOSAURUS REX looked as fierce as ever. TYRANNOSAURUS used to scare me. I still can't believe how big it is. Just its head is almost twice my size. I'm not afraid of dinosaurs anymore. Sometimes I call them "you bag of bone" under my breath. I can spend hours looking

at them. I used to wonder where they came from and how they got into the museum. But now I know. Dinosaurs lived millions of years ago. A few of them were as small as birds, but most were enormous. Some dinosaurs ate plants. Some dinosaurs ate the meat of the other dinosaurs. And some may even have eaten the eggs of other dinosaurs. Dinosaurs lived almost everywhere on Earth. They lived for millions of years. Then they died out. No one is sure why they became extinct. But they did. There hasn't been a dinosaur around for 65 million years. Until about 200 years ago, no one knew anything about dinosaurs. Then people began finding things in rock. They found large footprints. They found huge, mysterious bones and teeth. People were finding fossils. They began asking questions about

them. Fossils are a kind of diary of the past. They are the remains of plants and animals that died long ago. Instead of rotting or crumbling away, the remains were preserved, and slowly turned to stone. Fossil hunter found more and more big bones in different parts of the world. Scientists studied the fossils. They said the bones and teeth and footprints all belonged to a group of giant reptiles that lived on Earth for million of years. The giants were named DINOSAURIA, or terrible lizards. What finds these were! People crowed into museums to see them. But the dinosaur bones didn't just get up and walk there. They had to be dug out of the ground, slowly and patiently. Even today, digging up dinosaurs is not an easy job. A team of experts must work together. This is how fossil hunters work. First,

they have to find a dinosaur. They search along riverbanks and in quarries. They climb up high cliffs and down into steep canyons. With luck, someone spots a fossil bone poking through the rock. The site is covered with a tent, and the work begins. Sometimes the fossil is buried so deep, the rock around it has to be drilled or blasted. Tons of rubble are carted away. Scientists chip at the rock close to the fossil. They brush away the grit. They have to be very careful. As soon as a bone is uncovered, it is brushed with shellac. The shellac helps hold the bone together, so it won't crumble. Then the bone is numbered. Sometimes a skeleton had to be cut apart so that it can be moved. The draftsman draws each bone in its exact position, and the photographer takes pictures. That way,

there can be no mix-up later, when someone tries to put the skeleton together. When bones are ready to be moved, they are carefully wrapped. Small bones are wrapped in tissue paper and put into boxes or sacks. Large bones are left half buried in the rock. They will be dug out later, in the museum. These fossils are covered with a plaster cast, just as a broken leg is. Each bone is then packed in straw, put into a crate, and taken to the museum. At the museum, scientists unwrap the fossil. They finish digging it out of the rock. They study the bone. They compare the bones to other dinosaur bones. They compare them to the bones of other animals. They try to figure out what size and shape the dinosaur was. They try to find out how the dinosaur stood and walked, and what it ate. If there are enough bones,

scientists are able to build a complete skeleton. A frame is made in the shape of the dinosaur to support the bones. The bones are wired together, one by one. They are held in place with pieces of metal. If any bones are missing, plastic or fiberglass ones are made to replace them. You can hardly tell the new bones from the old ones. After many months the work is complete. The dinosaur skeleton looks just as it once did. Until recently, only a few museums had dinosaurs. Then scientists learned how to make copies of the skeletons. The copy is hard to make. It takes a long time. The original skeleton has to be taken completely apart, bone by bone. The new pieces are made of fiberglass. A fiberglass dinosaur is just as scary as the original, but much stronger and lighter. Now museums all over the world have

dinosaur skeletons. And many people can spend hours looking at them, the way I do.