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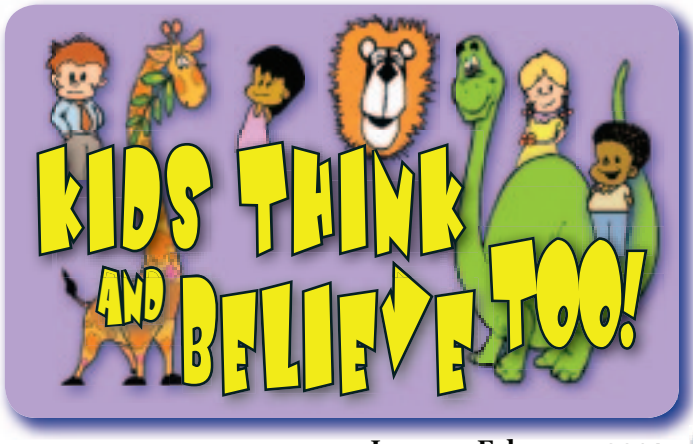

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DINOSAURS – WHAT DO WE KNOW? [1]

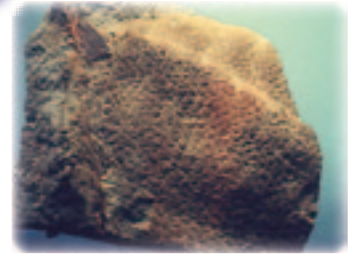
by Lanny and Marilyn Johnson

How do we know that dinosaurs used to live on this earth? We find their bones, or bones that have turned into rocks, called fossils. After finding dinosaur fossils, we must get them out of the ground (not always an easy thing to do), clean them up (using all kinds of special tools), and then put them together like a jigsaw puzzle.

That is how we get dinosaurs like this one (a Stegosaurus). What the museums don't usually tell you though, is that we hardly ever find complete dinosaur skeletons. It usually takes several different dinosaur fossils to make one total dinosaur. Sometimes they don't even find all of the bones, and have to guess what they might have looked like.

Once we get a dinosaur's bones put together, scientists must step out of the area of empirical (or observable) science. Empirical science is knowledge gained by observation. In other words, using our senses, scientists do experiments, study something, and get "smart" from it. Scientists have done all they can do to study this dinosaur. They have weighed and tested the bones, touched the bones, smelled the bones, tasted the bones, and listened to the bones! But from here on we step out of the realm (area) of empirical science and can only guess about the dinosaurs.

For example, how does anyone know the color of dinosaurs? Can fossils tell you what color a creature is? No. Now impressions of dinosaur skin have been found in rocks. If you stick your hand in stiff mud, then pull your hand out, you are left with what is called an impression. From that impression, we can tell what your hand looks like. Dinosaur skin impressions tell us the texture of a dinosaur's skin, whether it was leathery, scaly, rough or smooth. However, it cannot tell us the color, because all we are looking at is rock.



So how do people get some of these brightly colored dinosaurs we see in books, movies and museums? It is called Artwork! How can they tell that Dilophosaurus had a bright yellow crown, red sack, and stripes? They cannot. This dinosaur came straight out of Hollywood. In Jurassic Park, a dinosaur character jumped on a man and spit poison in his face. They needed a colorful critter for the story, so one was made up. Why not use Dilophosaurus?

The pictured dinosaur model was found at the Dinosaur Journey Museum in Fruita, Colorado, where many of the dinosaurs are animated. This one moved its neck, blinked its eyes, and growled. About five feet away from its head was a wooden bridge that you can walk over. If you stood on the bridge, looking Dilophosaurus in the eye, all of a sudden it would spit on you! A big gob of water shot out of his mouth, and if you did not move fast enough, you would get wet! Thousands of adults and kids have crossed that bridge and gotten wet. As they dried off, many believed that Dilophosaurus must have been able to spit poison, because they were just spit on! But wait, do fossil bones tell you if an animal can spit or not? Of course not. People can come up will all kinds of ideas on how an animal acts, but until we actually see it doing something, they do not know if it can actually do it or not.

Many mistakes have been made with dinosaurs in the past. In fact, scientists made a mistake with Iguanodon, the very first dinosaur discovered (actually rediscovered, because ancient people already knew about dinosaurs [2, 3]). As the few fossil parts of Iguanodon were being put together, they found a spike; however, they could not figure out where the spike belonged, so the scientists chose to stick the spike on Iguanodon's nose. They also had them walking on all four legs. As time went by, 30 more Iguanodon's were found jumbled up in a pile at a coal mine in Belgium. Some believe they were washed together in a flood (Noah's Flood?). It was discovered that Iguanodon had short front legs (most likely used as arms), probably walked upright, and the spike was discovered in place. It did not belong on his nose at all, but was actually a thumb! So what did Iguanodon use this spike for? Defense? Iguanodon had a toothless beak and plant-grinding side teeth, so it probably

could not use his mouth for defense, so maybe it used its spike to fight off other dinosaurs if they attempted to eat it. Maybe it used the spikes to dig up roots, or peel bark off of trees, or pull leaves off of plants. Maybe Iguanodon was just a real itchy dinosaur. Have you ever had a really bad itch (especially after a sunburn)? It would be nice to have a built-in scratcher right on your thumb.

Does anybody really know for sure what it was used for? No, which is the whole point. Until somebody actually finds a live Iguanodon, and observes it using the spike, nobody (except God) will ever really know. People can use their imagination and come up with all kinds of stories and guesses, but only observation will actually show what they were used for. A thing to remember - imagination is not science, observation is science!

[1] Derived from Discover Creation Children's Adventure Curriculum pgs. D53 – D56 … available at: http://discovercreation.org/store/DiscoverCreationChildrensAdventureCurriculum.htm

[2] http://discovercreation.org/kids/documents/JulandAug1997KTB.pdf

[3] http://discovercreation.org/kids/documents/MayandJun1998KTB.pdf

Note - the evidence of Plesiosaur carcass caught by Japanese fishing boat in 1977 is now thought by some to possibly have been a Basking Shark.

FOR ANSWERS GO TO: http://www.discovercreation.org/kids/NewsletterAnswers.htm

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Find the 25 differences between the 2 pictures