



Kylie's Fossil Find: A Post-visit Lesson

PowerPoint Script

Today we will learn about the real life story of a very important fossil that was discovered in Badlands National Park during the summer of 2010.

During the summer, kids and their families attend junior ranger programs every day at Badlands National Park.

On May 30, 2010 a seven year old girl named Kylie Ferguson went on one of these programs with her family.

Her mom and dad took her to the program, along with her sister Skylar. During the program, the Ferguson family learned all about fossils.

While they were exploring the Badlands, Kylie and her mom noticed something on the ground that looked a little unusual. It was buried in a butte. It was shiny and white. They thought it might be a fossil.

They did the right thing! They told a ranger. Next, they filled out a visitor site report at the visitor center.

Visitor Site reports look like this. Good reports contain information that help park paleontologists locate fossil finds. Kylie and her mom wrote down important details such as where they found the fossil and what it looked like.

Kylie's report notes that they found the fossil over the hill from the picnic tables at the visitor center.

It also says the fossilized bone was shiny and white.

Paleontologists checked on the fossil find throughout the summer.

Every time it rained, the butte eroded and more of the fossil was exposed.

Paleontologists soon realized that this was a very rare saber tooth cat skull! Skulls from saber tooth cats are usually broken or fragmented.

In this case, however, the fossils were found in a hard rock called limestone. The hard limestone protected the fossils for millions of years before Kylie found them.

Paleontologists carefully excavated the fossils.

It took them three days to carefully dig around the fossilized bones and remove them from the butte!

When the fossils were removed from the butte, there was still a lot of rock surrounding the fossils. The extra rock helped protect the fossils until they could be carefully prepared in a lab.

Paleontologists made a plaster jacket to help protect the fossils so they could be moved to the lab.

Next, the fossils had to be prepared in the lab.

This paleontologist is using a tiny jack hammer to remove the rock around the fossil.

It took several weeks of work to remove all the rock.

Now, the fossil skull looks like this. It is a museum-quality specimen!

Paleontologists carefully examine fossils for clues that can inform them about ancient life. Kylie's saber tooth cat skull has several bite marks on it.

The shape of the bite marks matches the tooth pattern of another saber tooth cat. Kylie's cat probably died when it was attacked by another saber tooth cat millions of years ago!

The saber tooth cat was very old when it died. Its sharp teeth were worn down from many years of chewing. It lived a long life.

Saber toothed cats lived millions of years ago. The scientific name of these saber toothed cats is *Hoplophoneus* (HOP-LOW-PHONE-EE-US). Kylie's fossil can help paleontologists better understand how these animals lived.

Kylie is a model Junior Ranger! She used her observation skills to find a fossil. Next, she reported it to park rangers. Paleontologists were able to recover an amazing and scientifically significant fossilized saber tooth cat skull.

Now Kylie is famous! Her picture appeared on the front page of her local newspaper.

The fossilized skull, lower jaw, and vertebra will remain in the museum collection at Badlands National Park. It will be protected so paleontologists can continue to learn about ancient life. Without Kylie's report, this fossil would have been destroyed by the forces of erosion.

Thanks to Kylie and the work of the paleontologists, this fossil will be preserved and protected for future generations.