

# Animal Station

You are an animal living in or around Fossil Lake!

Many different animals lived in Fossil Lake including fish, stingrays, turtles and crocodilians. Other animals lived around the lakeshore and used the abundant resources nearby to live on. These animals include bats, birds, early horses and otter-like animals.

There were also many invertebrate animals that lived in and around the lake including shrimp, crayfish, water striders, wasps, spiders and dragonflies.

Roll the dice and see what happens to you!!

# Plant Station

You are a plant living in or around Fossil Lake!

There was a huge diversity of plants that lived in or around Fossil Lake. Over 250 plants species have been identified! These range from deciduous trees like maple, sycamore and sassafras to palm trees, vines and lotus. Many plants lived here because the climate was much warmer and wetter than it is today. The Fossil Lake climate was similar to Florida.

Plants are an important part of the ecosystem because they are the primary producer of food in the food chain. Most plants are eaten by animals, insects or scavengers which recycles the nutrients back into the ecosystem.

Plants are not usually fossilized because they do not have hard parts and easily decompose. The plant fossils found in fossil Lake allow paleontologists the opportunity to study an important aspect of the ancient ecosystem.

Roll the dice and see what happens to you!!

# Dead Animal Station

You died in Fossil Lake...

Unfortunately, everything must die. There are many ways in which animals can die, including old age, predators, disease or injury (for example, breaking a leg). There are also lots of things that can happen to dead animals. Once dead they begin to decay, which produces gases causing the animal to bloat. If the animal is in the lake, it then floats around. Bloat and float! This can cause the bones of the animal to shift around, or cause the animal to explode. Both of these makes for messy fossils, if it gets that far.

Once the animal dies it begins to decompose or be eaten by scavengers. If you fully decompose or are eaten, you will not become a fossil, but will be recycled back into the ecosystem. If you fall to the bottom of the lake and are protected from scavengers by mud and sediment you have a chance to become a fossil!

Roll the dice and see what happens to you!!

# Dead Plant Station

You are now dead plant matter!

Every year lots of dead plant matter is deposited in forests around the world. This does not mean that all the plants are dying. Some trees lose their leaves every fall to prepare for the winter. These trees are called *deciduous trees*. They provide much of the plant matter to the ecosystem.

Some plant parts fall into rivers and streams. If they sink, they might be deposited into a lake or still water in a stream. These leaves and plant parts either decompose in the oxygen rich shallows or sink to the deeper portions of the lake where fossilization is more likely.

Roll the dice and see what happens to you!!

# Detritus Station

You are detritus floating in or around Fossil Lake!

Detritus is the organic matter that is left over after an animal or plant decomposes. Detritus is an important part of the ecosystem because it provides food for decomposers like fungi, worms and snails. Microorganisms like bacteria also feed on the detritus. Detritus provides much of the nutrients for the organisms at the bottom of the food chain.

When these animals eat detritus they are recycling it back into the food chain. For example, if a leaf decomposes into detritus, it may be eaten by a worm cruising through the soil, the worm might then be eaten by a bird. When the bird dies, it may decompose back into detritus OR sink to the bottom of the lake and become a fossil!!

Think of detritus as a recycling center or compost bin. It is where something 'used up' is put back into the environment where it serves a new purpose.

Roll the dice and see what happens to you!!

# Lake Bottom Station

You have made it to the bottom of Fossil Lake!

You have slowly sunk to the depths of Fossil Lake where it is cold, dark and salty. You settle into a soft ooze that covers the bottom of the lake and begin to be covered by a continuous snow of carbonate sediment.

Now that you have made it to the bottom of the lake you are close to becoming a fossil! BUT it is not yet guaranteed that you will become one...

There is still a possibility that you could be eaten by scavengers or decomposed by bacteria. Some animals fill with decomposing gasses and explode!! Exploded fish can still become fossils.

The bottom of Fossil Lake was perfect for the preservation of fossils. Low oxygen levels prevented bacteria and scavenging fish from eating the dead animals there. Salty water also helped preserve the organisms before fossilization.

Roll the dice and see what happens to you!!

# Buried in Mud Station

You are buried in sediment at the bottom of Fossil Lake!

A constant rain of tiny particles (sediment) sinks through Fossil Lake where it builds up on the bottom. Anything that is still on the bottom gets covered in sediment. Storms bring more sediment that bury animals and plants more quickly.

Once you are buried you have the best chance of becoming a fossil, but it is still not guaranteed. Scavengers under the sediment, like bacteria, can still decompose your remains.

Roll the dice and see what happens to you!!

# Fossil Station

You become a fossil!!!

You are one of the few animals that lived in the past and became a fossil. Many millions of years have passed since you died and were buried by mud and sediment at the bottom of the lake. Minerals filled the pores of your bones and soft tissue, like skin, degraded into a thin film of carbon.

What happens next?

Not all fossils are uncovered from the rock and displayed for the world to see. Some are never discovered and remain trapped in rock. Some fossils are destroyed by natural processes like erosion. Some are so altered by processes deep within the earth that they are unrecognizable. Some are even destroyed (an accident!!) by scientists!!

Ideally you will be properly excavated from the rock and studied by scientists who can learn more about the ancient ecosystem you lived in.

Roll the dice and see what happens to you!!