



Day 8: Flagstaff Festival of Science Junior Paleontologists *Spinosaurus and Tyrannosaurus rex*



Dinosaur Dave

Welcome back, Junior Paleontologists! To find more about this program, read the first page of Day 1. The best way to participate is to download and print each day's activities, and use those sheets to find answers, draw or paint your ideas, or write a poem or story. We will call this your Junior Paleontologist Notebook or Journal.

Remember

- Dinosaur detectives: all answers are good ideas.
- Dinosaur artists: all art is good art.
- Dinosaur writers: all stories and poems are good stories and poems.
- You are welcome to ask questions and try out your ideas.

Keep everything you make in your Junior Paleontologist Journal. When the Museum of Northern Arizona opens to the public, take your Journal to the front desk, ask for an official MNA Junior Paleontologist badge, and go see the fossil displays.

At the end of today's activities, I will give you an email address where you can send questions, your answers, your art, or your stories and poems.

Now back to dinosaurs, but this time a dinosaur that lived in water.

Spinosaurus--A Dinosaur in a Watery World

Which would win: *T. rex* or *Spinosaurus*? (“SPY-no-SOAR-us”) Kids often ask me this question because both of these FEARSOME PREDATORS are popular.

This is a hard question because they lived in different places. *Spinosaurus* (“SPY-no-SAW-rus”) has become popular as the dinosaur with huge spines on the back and a flat head with TOO MANY teeth.



Spinosaurus skeleton in a museum

Dinosaur Detectives

Look at the spines on the back. Can you figure out how they were used? _____

Answer: no one knows for sure. It looks like a sail, but *Spinosaurus* was too big to use the spines like the sail of a sailboat. Maybe it was for gathering heat in the sun. Or, maybe these spines were for muscle attachment.

Dinosaur Artists

In the space below, make a drawing or a painting that shows the spines on a *Spinosaurus*.

Dinosaur Authors

In the space below, write a story about *Spinosaurus*. Can you imagine what it ate?

Now look at the head. It is flat, with long jaws and lots of teeth.



Dinosaur Detectives

Does this head look like the head of any other dinosaur? Or any other animal that you know? Can you imagine where *Spinosaurus* lived by looking at the head?

Answer: no one knows for sure. It looks like a sail, but *Spinosaurus* was too big to use the spines like the sail of a sailboat. Maybe it was for gathering heat in the sun. Or, maybe these spines were for muscle attachment.

Did you see that its head is a lot like the head of a crocodile? Well, sort of like a crocodile. *Spinosaurus* probably spent most of the time in water but could also walk on land. All those teeth and the long, powerful jaws are for hunting anything that swam in water, like fish or crocodiles or even a dinosaur coming for a drink.



Spinosaurus swimming under water.

Surprise! Most paleontologists think that *Spinosaurus* was even BIGGER than *T. rex*. *Spinosaurus* weighed more than a large elephant. *Spinosaurus* was AWESOME!

***Tyrannosaurus rex*: A Super-Giant Predator of the Cretaceous Period**

Tyrannosaurus rex and *Spinosaurus* were the biggest predators that ever lived on land. *T. rex* lived in our area, but *Spinosaurus* lived mainly in Africa. They both weighed as much as a large elephant but *Spinosaurus* was a little bigger. Think about that. *T. rex* walked on just two legs, and those two legs had to hold up as much as the four legs of an elephant! *Spinosaurus* spent most of its time in water, but it could also walk on land, usually on its two legs.



Skeleton of *T. rex* in a museum.



Spinosaurus skeleton in a museum

Could *T. rex* and *Spinosaurus* live in the same place together?

Answer: I think maybe they could live in the same place, with *T. rex* on land and *Spinosaurus* in water. What do you think? _____

The Big Question

Now back to the BIG QUESTION: Who would win, *T. rex* or *Spinosaurus*? Can you decide which one is THE KING???

Keep up the good work, Junior Paleontologists!

Tomorrow: Triassic Park

You can send an email message to me at DavidDGillette2020@gmail.com.