

Junior Paleontologists Journal – Week 6



Welcome back Junior Paleontologists!

Dinosaur Detectives from last week:

Pentaceratops used the horns for protection from meat-eaters.



Triceratops and *Pentaceratops* lived at the same time as *Tyrannosaurus rex* at the end of the Age of Reptiles. What happened to all of them? Did you think about EXTINCTION?

Dinosaur Artists from last week: Can you imagine what happened to the dinosaurs at the end of the Age of Reptiles? Write a short story about it or draw a picture to show what happened:

Did you come up with an idea on what caused EXTINCTION of the dinosaurs?

This week we will think about why the dinosaurs became extinct. That happened at the end of the Age of Reptiles about 65 million years ago. Something happened that caused the dinosaurs to be lost forever.

This is the greatest dinosaur mystery of all. And, nobody knows for sure what happened.

One popular idea is that a HUGE meteorite hit the earth and the explosion caused fires and dust everywhere that killed all the plants and other food for dinosaurs. Here is one artist's idea:



Dinosaur Detectives and Dinosaur Artists: Can you think of a dinosaur seeing the meteorite falling from the sky? What would happen next? Write your idea here or show your idea in a drawing:

Dinosaur Detectives and Dinosaur Artists from yesterday: Can you think of a dinosaur seeing the meteorite falling from the sky? What would happen next?

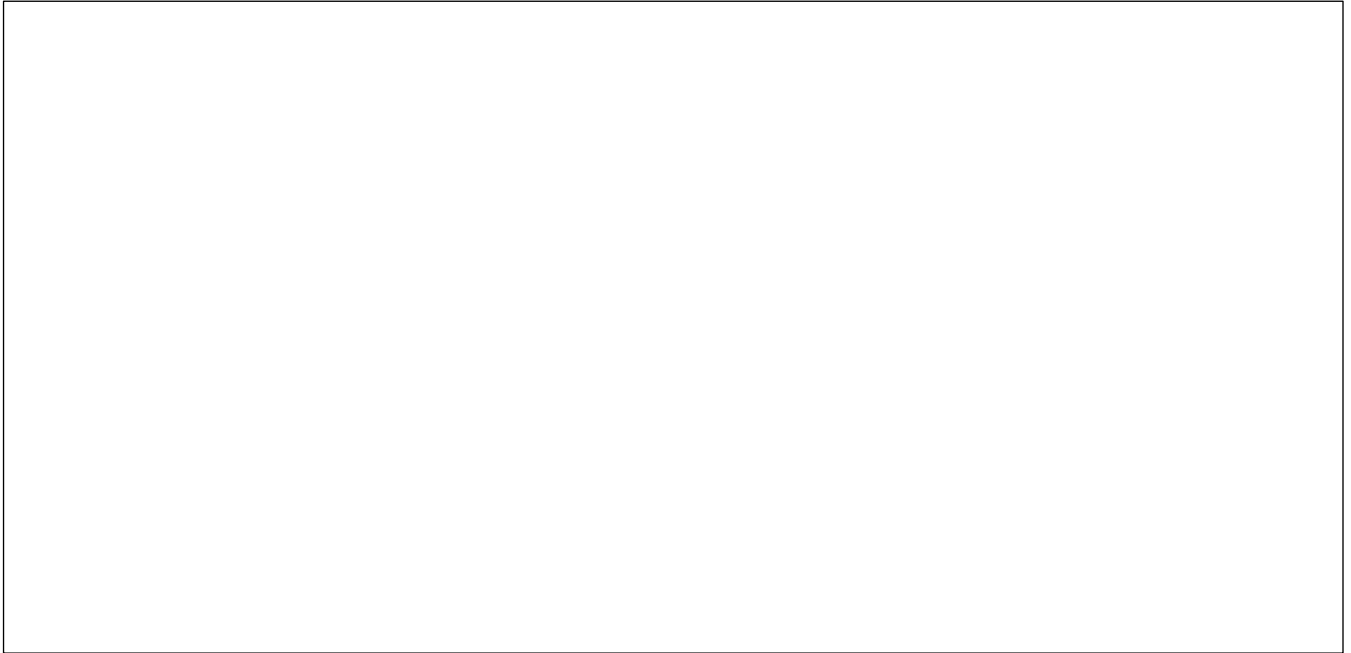
Your idea here: _____

(Answer on page 6)

Are there other ideas about dinosaur extinction? Yes, one important idea is volcanoes. Lava from volcanoes is VERY hot, but ash from volcanoes gets into the air and can block sunlight all over the world. Large volcanoes also make lots of dangerous gases.



Dinosaur Artists: Can you make a drawing with a volcano and one of your favorite dinosaurs? Or can you write a story about a huge volcano and dinosaurs?



Dinosaur Detectives: How can volcanoes be dangerous to plants and animals?



Do you have any questions for Dinosaur Dave?



Tomorrow: another idea about extinction

Answer to pg. 5 question: After hitting the ground the giant meteorite caused a huge explosion. The explosion caused fires and filled the air with enough dust to block sunlight.

Dinosaur Artists from yesterday: Did you make a drawing or write a story?

Dinosaur Detectives from yesterday: How can volcanoes be dangerous to plants and animals?



Answer: if they are close to the volcano the lava and fire can be a huge problem. But farther away the poisonous gases and dust can get into the air and even turn day into night. When that happens, all plants and animals are affected.

So far, we have talked about meteorites and volcanoes that might have caused the extinction of dinosaurs. Are there other ideas? Yes!

Sickness might also cause extinction. I do not have any good pictures of sickness, so I am adding a picture of some dinosaurs here just for fun:



Dinosaur Detectives: What dinosaur is this? _____

Questions to think about for tomorrow:

- Which dinosaurs became extinct? _____
- Which dinosaurs did NOT become extinct? _____

Do you have a question for Dr. Dave? Write it below:

Dinosaur Detectives from yesterday: Which dinosaurs became extinct?



(AAAS)

Answer: All the dinosaurs we have talked about so far in the Junior Paleontologist program. Some are famous, like *T. rex* and *Triceratops*. At the time of the great extinction there were hundreds of kinds of dinosaurs all over the world that also became extinct.

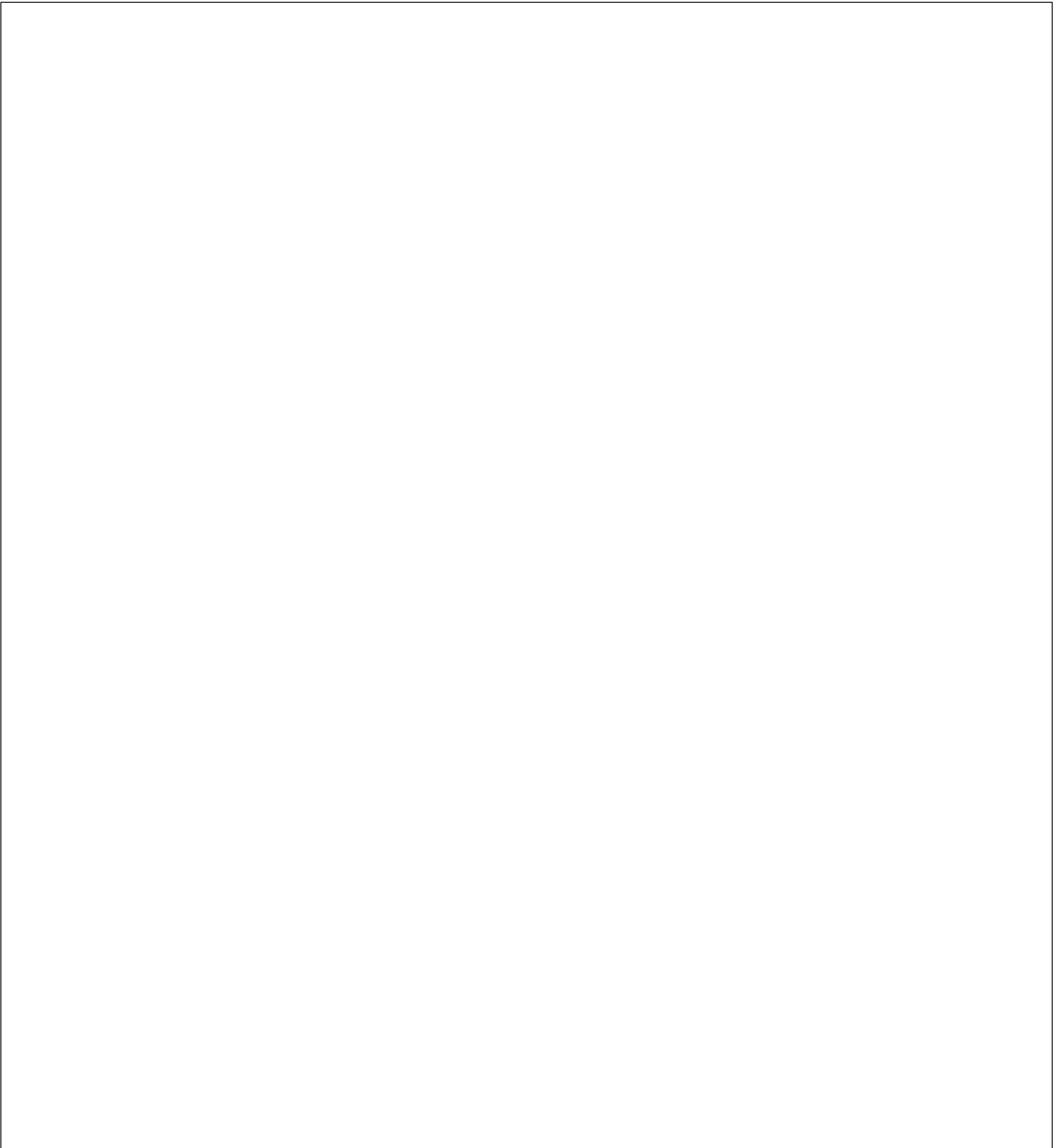
BIG dinosaurs became extinct. Smaller feathered dinosaurs did not.

Dinosaur Detectives: Which dinosaurs did NOT become extinct? (Hint: they had feathers)

Your answer: _____

(answer on pg. 11)

Dinosaur Artists: Can you make a drawing with GIANT dinosaurs and FEATHERED dinosaurs in the same picture?



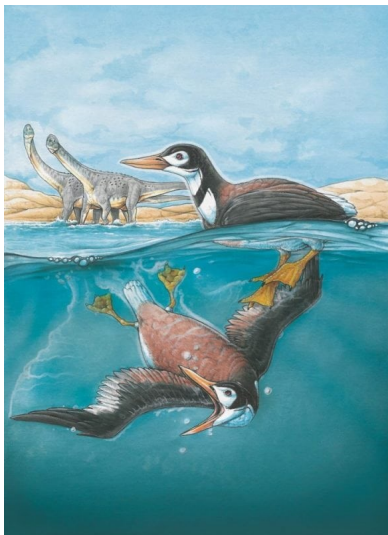
Dinosaur Detectives: Which dinosaurs did NOT become extinct?

Answer: That is correct – SOME of the feathered dinosaurs did not become extinct – we call them “BIRDS!”



(Smithsonian)

Feathered dinosaurs (birds) that did not go extinct.



Sea birds that resembled penguins.

Science Trends/Earth

Dinosaur Detectives: Why did the big dinosaurs become extinct, but not the FEATHERED dinosaurs? Write your answer here:

Did You Know? Feathered dinosaurs (birds) had teeth when all the dinosaurs were alive. But after the extinction, feathered dinosaurs (birds) did not have teeth. No birds today have teeth.

Do you have a question for Dinosaur Dave?

Dinosaur Detectives from yesterday: Why did the big dinosaurs become extinct, but not the FEATHERED dinosaurs?

Answer: We do not know. Somehow the feathered dinosaurs survived the meteorite explosion, the volcanoes, and disease. This is a paleontological MYSTERY!

Dinosaur Detectives: With the giant dinosaurs all gone, what happened to birds AFTER the great extinction? Write your answer here:



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Dinosaur Detectives: This picture shows some of the birds alive today. Can you count how many different kinds? _____

Dinosaur Artists: Can you draw or write a story about 3 different feathered dinosaurs (birds) that are still alive today?

Do you have a question for Dr. Dave?

Next Week: Prehistoric sea monsters from the Age of Dinosaurs!