



## TRAVEL TO A TIME LONG BEFORE DINOSAURS WHEN PERMIAN MONSTERS RULED THE EARTH!

The Permian Period, about 299 to 252 million years ago, was a time interval that occurred before the “Age of Dinosaurs.” At this time, most of the continents on earth were linked together in one large supercontinent called Pangaea and surrounded by one large ocean. Many different types of plants and animals evolved during this time, including reptiles. Different groups of early land vertebrates living at this time would become the ancestors to the first mammals and dinosaurs. The Permian Period ended in the largest mass extinction in history. Over 90% of all plant and animal life on Earth went extinct at the end of the Permian due to climate change, especially warming of global temperatures, and volcanic activity. Together, these factors greatly changed ocean levels, temperatures and chemistry, and levels of carbon dioxide and oxygen in the air and water. Survivors of this extinction would repopulate the Earth over time with a different diversity of species. Learning about the Permian Period can tell us about what life on Earth was like in the past and how it changed over time!

WEEK 9

## JOURNEY TO THE PERMIAN

DAY 2:

## DESIGNER DIMETRODON

One of the most famous Permian “monsters” is Dimetrodon, an animal that lived right here in Oklahoma. Dimetrodon is often mistaken for a dinosaur because of how it looks, but it became extinct well before the dinosaurs lived and was not closely related to them. In fact, Dimetrodon is a type of animal called a synapsid and is an ancient relative to mammals. Dimetrodon is best known for the large fin on its back called a “sail.” Paleontologists think Dimetrodon used this sail to impress other animals and to help it stay warm or cool. Although paleontologists have found fossils of Dimetrodon bones and footprints, they are not certain what colors or patterns Dimetrodon would have had all over its body and sail. Let’s create a Dimetrodon of our very own to show what we think they might have looked like!

### Before you start, you should have:

- Toilet paper or paper towel tube
- Glue
- A coffee filter or paper towel
- Three toothpicks
- Water
- Markers
- Cotton balls, Playdough or paper
- Scissors
- Optional: crayons, paint or other assorted craft materials

## Get Started:

1. Look at the image of Dimetrodon or do an image search for "Dimetrodon." [https://upload.wikimedia.org/wikipedia/commons/5/5e/Dimetrodon\\_grandis.jpg](https://upload.wikimedia.org/wikipedia/commons/5/5e/Dimetrodon_grandis.jpg)
2. Gather the supplies and craft materials from around your home.
3. Use the scissors to cut the coffee filter in half or to cut a half-circle out of a paper towel (ask an adult if you need help). This will be the Dimetrodon's sail.
4. Decorate the sail with markers. You can use any amount of colors or patterns!
5. Use your fingers to gently sprinkle water over the sail where you colored, so that the marker runs and becomes like watercolor.
6. Set the sail to the side to dry.
7. Decorate the toilet paper tube with markers, crayons or paint. This will be the Dimetrodon's body.
8. Use the paper, cotton balls, Playdough or any other materials you would like to create the Dimetrodon's four legs, head and long tail.
9. Glue the head, legs and tail onto the Dimetrodon's body.
10. Poke the three toothpicks into the top of the body (ask an adult if you need help). Angle the toothpicks like a fan, with the middle toothpick sticking straight up and the two side toothpicks angled halfway between the middle toothpick and the body.
11. Glue the dried sail onto the toothpicks.
12. Show someone the Permian "monster" you created and tell them about Dimetrodon!

## Keep exploring!

- Dimetrodons were carnivores (meat eaters) that had sharp teeth of different sizes and shapes to tear through and rip their food. Add sharp teeth to your Dimetrodon!
- Design a Dimetrodon that will camouflage (blend in) with the environment outside or somewhere in your home.

## More information on Dimetrodon:

<https://www.youtube.com/watch?v=SR3OOP9mImI>



<https://www.smithsonianmag.com/science-nature/the-dimetrodon-in-your-family-tree-54302176/>



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## What did you create?

Upload a photo or video and tag the Sam Noble Museum on Instagram or Facebook. You can also use the hashtags **#samnoblehome** and **#summerexplorers** to share!



Sam Noble Home



For more activities visit [samnoblemuseum.ou.edu/samnoblehome](http://samnoblemuseum.ou.edu/samnoblehome)