

Walking With Monsters – Before the Dinosaurs

Episode 2 “Age of Reptiles”

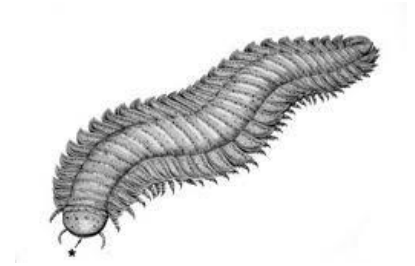
Carboniferous Period, 300 million years ago

1. Describe the plant-life and atmosphere of the Earth during this period.
2. What physical changes have reptiles undergone compared to fish, and amphibians that gives them a much greater range on land?
3. Incredibly large arthropods, such as *Mesothelae*, *Meganeurid*, and *Arthropleura* lived during this time. What modern arthropods do they resemble?

Mesothelae –

Meganeurid –

Arthropleura –



4. Why were arthropods able to get so unusually large during the carboniferous period?
5. What advantage did the Petrolacosaurus have that allowed it to survive the huge fire?
6. Describe how the climate changed moving into the next time period. Which group of animals did this favor? Why?

Early Permian Period, 418 Million Years Ago

7. What type of tree emerged and became dominant during this time period?
8. Two large reptiles are shown; the herbivorous *edaphosaurus* and the carnivorous *dimetrodon*. Each has a large sail on its back made of elongated vertebrae and tissue. What purpose did these sails have?
9. What additional adaptations did *dimetrodon* have that made it such an effective predator?
10. What behaviors were present in *dimetrodon* that helped increase the survival rate of its offspring?
11. How might the practice of cannibalism, even from the mother herself, actually help the evolution of the *dimetrodon* species?
12. Describe what changes reptiles underwent as the Permian period proceeded.

