



# FLESHING OUT FOSSILS

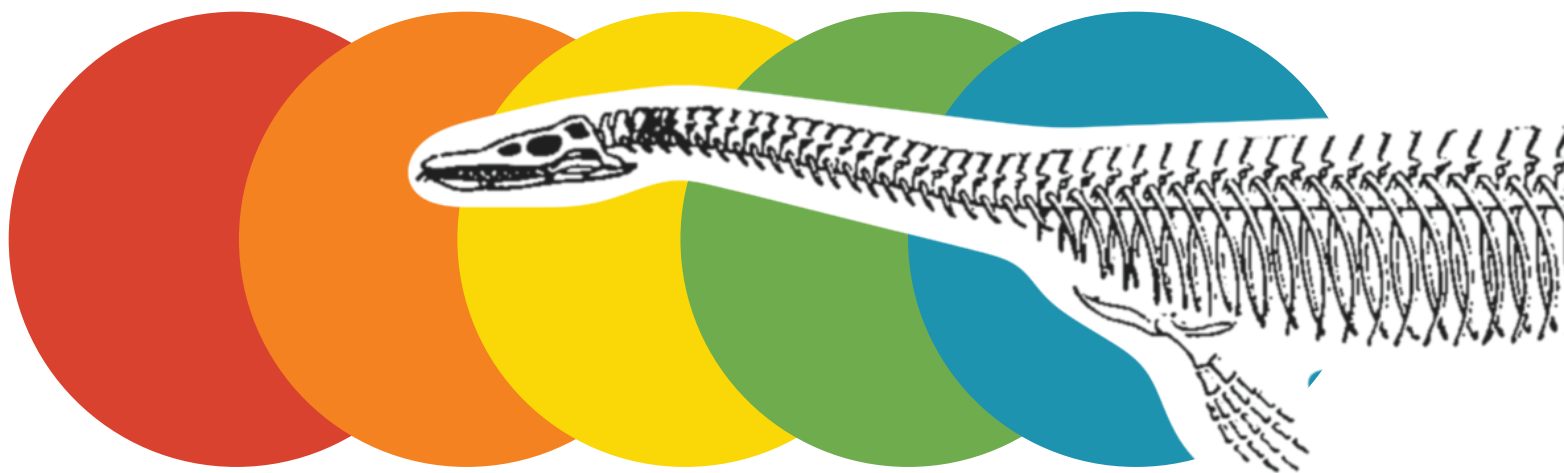
**Discovering fossils is only the first step in the paleontological process.**

After a paleontologist excavates and cleans fossilized bones, they will reconstruct the bones to get a better idea of the specimen's appearance when it was alive. Many fossils are fractured or incomplete, making this more difficult. In order to identify the specimen, the fossil is matched to previous finds. Any missing parts may be sculpted to make a complete skeleton. It can be difficult to accurately recreate an organism that has been dead for tens of millions of years, especially in the case of new species, but doing so can yield important anatomical information.

Paleontologists don't always get it right when they reassemble fossilized bones. One famous example of a mistake in reconstruction kick-started the Bone Wars, an intense period of fossil hunting and competition between two paleontologists in the 19th century. It started when paleontologist Othniel Charles Marsh, pointed out publicly that his colleague, Edward Drinker Cope, had reconstructed the first known *Elasmosaurus* with its vertebrae backwards—placing its head on its tail!



**ACTIVITY ON NEXT PAGE!**





# DRAWING DOROTHY

Use the space given to try your hand at paleoart and reconstruct Dorothy based on the skeleton and with the help of the video on the topic linked on the Swimming Elasmosaurus page on the PME's website.