

# Oldham County Public Library Presents STEAM CLUB



science technology engineering art math

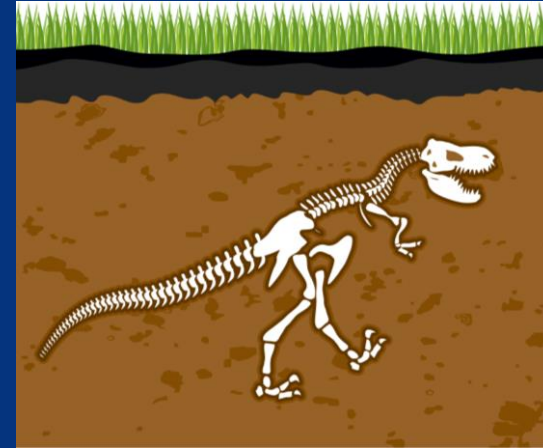
# What are Fossils?

Fossils are the ancient remains of organisms. Fossils are rocks. They can also be molds, such as footprints.



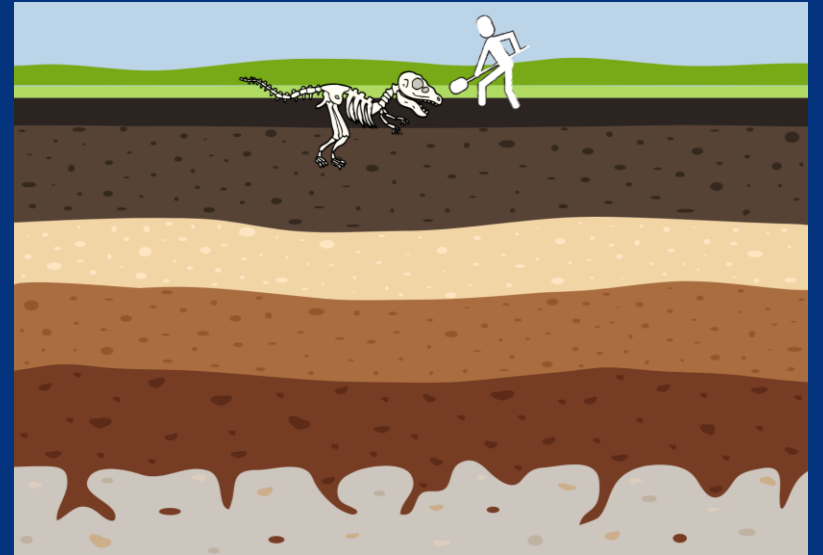
# How are Fossils Formed?

1. The plant or animal dies. The skeleton gets covered in sand or mud.
2. More and more layers of sand or mud pile on top of the skeleton.



# How are Fossils Formed?

3. After at least 10,000 years, they turn partly to stone. Now they are fossils!
4. Over time, wind or water wear away the ground. The fossils peek out and scientist find them and dig them up.



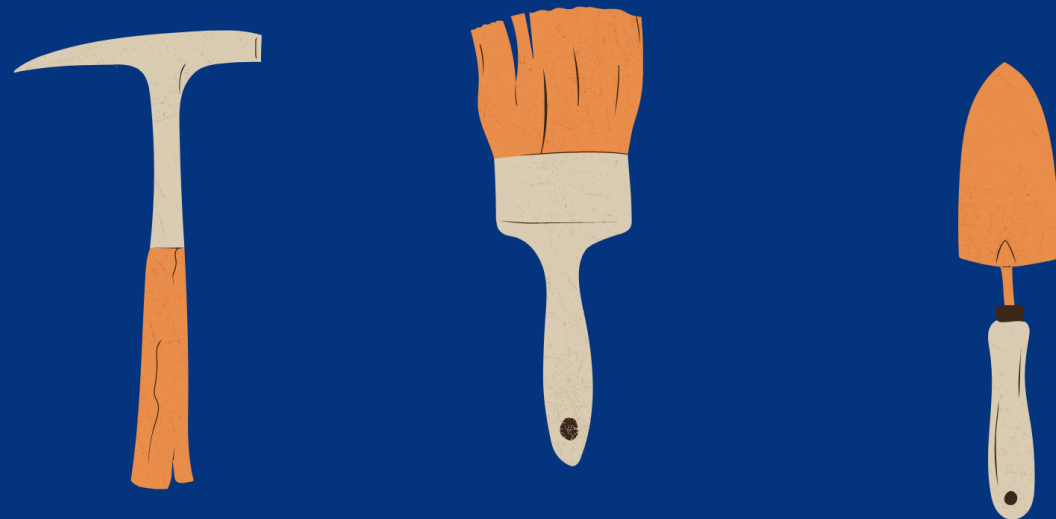
# Who studies fossils? Paleontologist

Paleontologists are interested in finding about all life on earth. They study all kinds of fossils not just dinosaur bones.



# What tools do Paleontologist use?

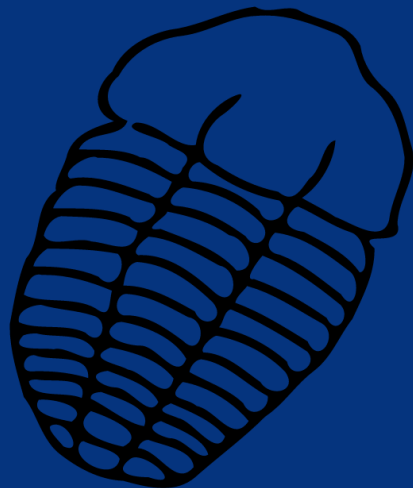
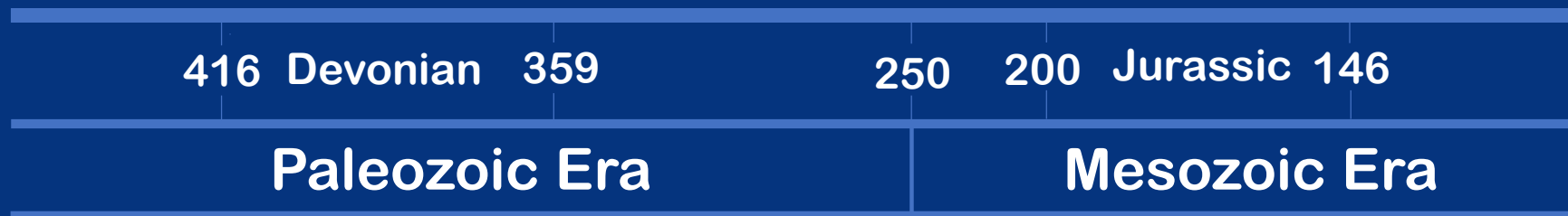
- Big rocks – shovels, rock hammers
- Smaller rocks – knife or picks
- Paint brush to keep area clean



# How do you know what you have found?

- You have found and identified other fossils nearby
- Sometimes, you have to look in books
- Ask other experts about mystery bones

# Timeline – millions of years ago





# Devonian Period – age of fishes

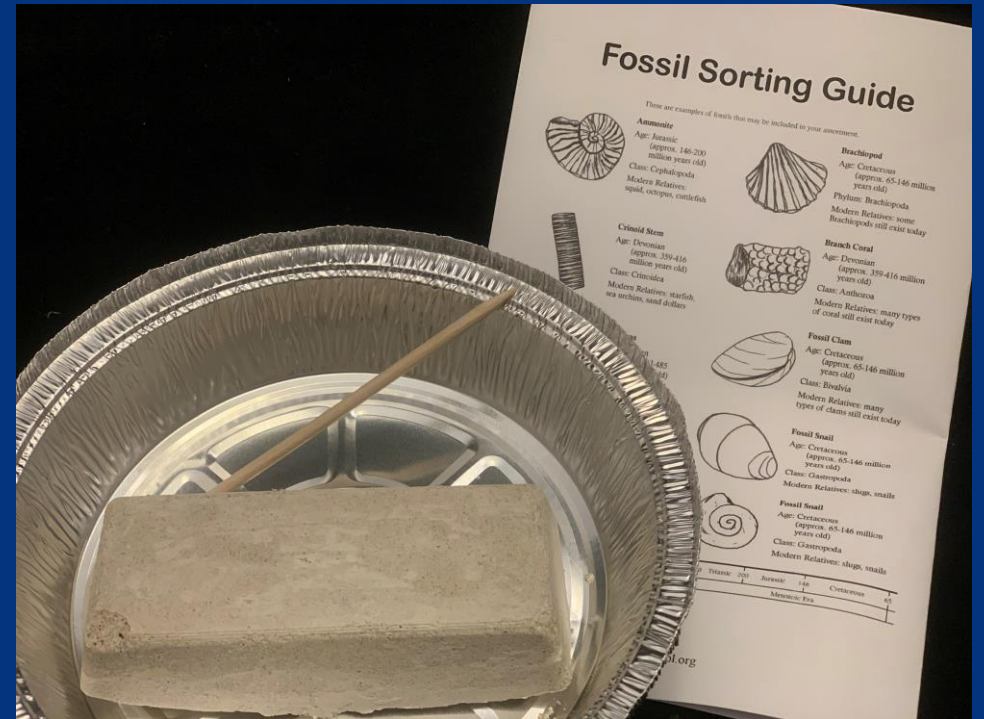
## Approx. 400 million years ago

- During most of this period, Kentucky was covered by shallow tropical seas.
- The most famous coral fossil bed is found at the Falls of the Ohio.



# Ready to be a Fossil Hunter?

- Digging block (with fossils buried inside)
- Digging tool
- Container
- Fossil identification sheet



# Step 1: Excavation

1. Find a clear space to work. Consider covering the area to avoid a mess.
2. Gently scrape your block with the digging tool. Go slowly so you don't break the fossils.
3. Optional: use a paint brush to sweep away dust.

# What can you expect:

About 10 fossils. You will have some, but not all that are listed on the fossil guide. Some of them can be quite small and/or difficult to identify.



Brachiopod



Crinoid Stem












Fossil Snail

# Step 2: Fossil Identification

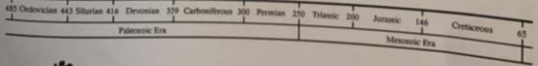
Once you discover your fossils, rinse them in water to bring out their details. Then use the identification sheet to identify which fossil you have found. Record your findings on the sheet.

## Fossil Sorting Guide

These are examples of fossils that may be included in your assortment.

 <p><b>Ammonite</b> Age: Jurassic (approx. 146-200 million years old) Class: Cephalopoda Modern Relatives: squid, octopus, cuttlefish</p>	 <p><b>Brachiopod</b> Age: Cretaceous (approx. 65-146 million years old) Phylum: Brachiopoda Modern Relatives: some Brachiopods still exist today</p>
 <p><b>Crinoid Stem</b> Age: Devonian (approx. 359-416 million years old) Class: Crinoidea Modern Relatives: starfish, sea urchins, sand dollars</p>	 <p><b>Branch Coral</b> Age: Devonian (approx. 359-416 million years old) Class: Anthozoa Modern Relatives: many types of coral still exist today</p>
 <p><b>Orthoceras</b> Age: Ordovician (approx. 443-485 million years old) Class: Cephalopoda Modern Relatives: squid, octopus, cuttlefish</p>	 <p><b>Fossil Clam</b> Age: Cretaceous (approx. 65-146 million years old) Class: Bivalvia Modern Relatives: many types of clams still exist today</p>
 <p><b>Trilobite</b> Age: Devonian (approx. 359-416 million years old) Class: Trilobita Modern Relatives: horseshoe crabs, spiders</p>	 <p><b>Fossil Snail</b> Age: Cretaceous (approx. 65-146 million years old) Class: Gastropoda Modern Relatives: slugs, snails</p>
	 <p><b>Fossil Snail</b> Age: Cretaceous (approx. 65-146 million years old) Class: Gastropoda Modern Relatives: slugs, snails</p>

Timeline by Millions of Years Ago:



443 Ordovician 443 Silurian 416 Devonian 359 Carboniferous 250 Permian 250 Triassic 200 Jurassic 146 Cretaceous 65

Paleozoic Era Mesozoic Era

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# Step 3: Tips

- Excavation takes time – be patient and take breaks if need be.
- If you digging block is too tough, try dripping a little water on the block. The water should soften the block making digging easier.
- A paint brush can brush off dirt too.

# Step 4: Extension

Research your fossil on the internet or in a book. Does your fossil look like the picture?

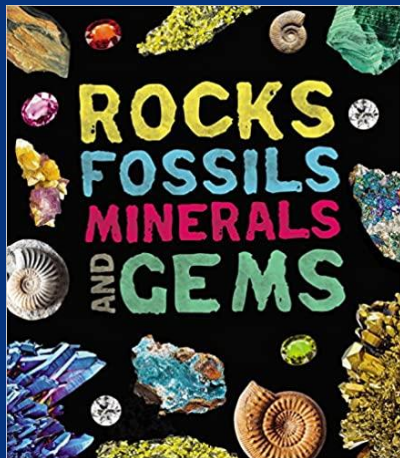
Search for your own fossils.

[Falls of the Ohio State Park](#)

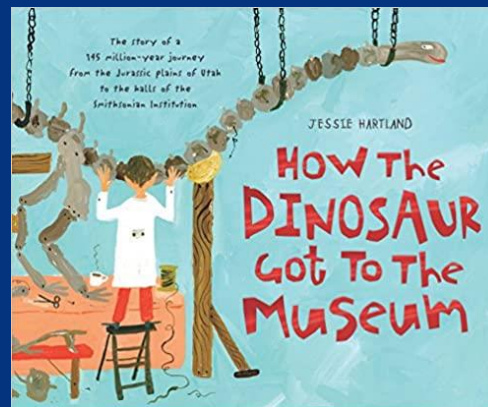
Near creeks and streams, or where limestone is visible.

# Additional Resources

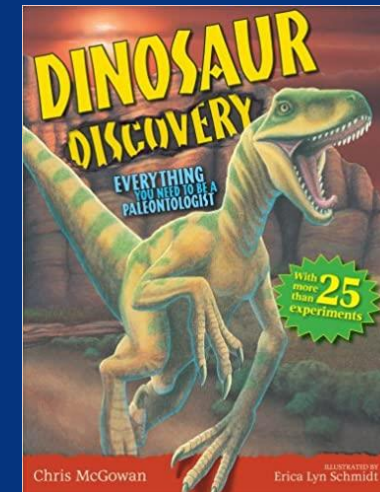
Want to learn more about fossils? Check out these great books from the library!



[Rocks Fossils  
Minerals and Gems](#)



[How the Dinosaur  
Got to the Museum](#)



[Dinosaur Discovery:  
Everything you need to be a  
Paleontologist](#)



Thanks for coming!



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