

# RAFT IDEAS

**Topics:** Fossils, Extinct Species, Data Collection, Sedimentary Layers

## Materials List

- ✓ Wax (at least 2 different colors)
- ✓ Melting pot
- ✓ Long, thin containers to use as molds
- ✓ Small objects to represent fossils
- ✓ Nails
- ✓ Tack hammers or equivalent

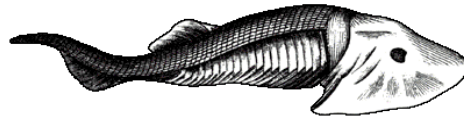
This activity can be used to teach:

- Fossils (Next Generation Science Standards: Grade 3, Life Science 4-1; Grade 4, Earth and Space Science 1-1; Middle School, Earth and Space Science 2-3; Middle School, Life Science 4-1, 4-2)
- Geologic Time Scale (Next Generation Science Standards: Middle School, Earth & Space Science 1-4)



## Waxing Discoveries

### Modeling the Process of Making and Finding Fossils



Use this “kid-approved” topic to model the process of how objects get trapped in sedimentary layers. The students engage in a “fossil dig” and use careful observation skills to help understand how scientists piece together the history of life on Earth.

### Assembly

1. Melt one color of wax over a low to medium heat.
2. Pour a layer of wax into the molds 1 cm – 2.5 cm (1/2” – 1”) thick works well.
3. Place several “organisms” into this layer while the wax is still liquid. Once the surface of the wax layer has solidified, place additional organisms on the surface or press “tracks” into the wax.
4. Allow the first layer to solidify.
5. Repeat this process using different (or alternating) colors for each layer until there are at least three layers. Each layer should contain “organisms” that only exist in that layer. (Alternate assembly: Use thin slabs of soap instead of wax. Place “fossils” in between layers.)

### To Do and Notice

Use the nails and tack hammers to “dig” through the “sedimentary layer” samples and locate fossils. Carefully record all findings by noting locations of fossils within layers.

### Content behind the Activity

The topic of fossils spans several scientific disciplines: biology, ecology, Earth science, and chemistry. Paleontologists use careful techniques to collect and analyze data from rocks in order to piece together the history of life on Earth. They date fossils using absolute dating techniques (radioactive dating), and relative dating techniques (The Law of Superposition states that fossils found at deeper layers are older than those found at higher layers.)

Fossils are evidence of past life. They can include actual organisms or parts (True Form Fossils); negative impressions of the organism (Mold Fossils); filled in molds of the organism (Cast Fossils); or any other evidence of the organism, like footprints or nests (Trace Fossils).

### Web Resources (Visit [www.raft.net/raft-idea?isid=454](http://www.raft.net/raft-idea?isid=454) for more resources!)

Basic information on fossils and color pages for students can be found at:

[www.EnchantedLearning.com/subjects/dinosaurs/dinofossils/Fossiltypes.html](http://www.EnchantedLearning.com/subjects/dinosaurs/dinofossils/Fossiltypes.html)

A summary of fossil types can be found at:

[www.howstuffworks.com/question609.htm](http://www.howstuffworks.com/question609.htm)