

# Types of Fossils and How They Are Formed

Created by: Miss deBoth

Date: October 26, 2015

Length: 45 Minutes

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| <p>Content: (Topic)</p> <ul style="list-style-type: none"><li>● Students will create the four different types of fossils</li><li>● Students will demonstrate their understanding of the four types of fossils through representation with salt dough</li></ul>  | <p>Instructional Strategies: (Specific)</p> <ul style="list-style-type: none"><li>● Demonstrations</li><li>● Model Building</li><li>● Listening and Viewing</li></ul>        |
| <p>Outcome(s):</p> <ul style="list-style-type: none"><li>● <b>RM 4.3:</b> Analyze how weathering, erosion, and fossils provide evidence to support human understanding of the formation of landforms on Earth.</li></ul>  | <p>Indicator(s):</p> <ul style="list-style-type: none"><li>● Create models of different types (e.g., amber, imprint, cast, and mould) of plant and animal fossils.</li></ul> |
| <p>Cross Curricular Competencies:</p> <ul style="list-style-type: none"><li>● Developing Thinking: Thinking Contextually</li></ul>  |  |
| <p>Background Information:</p> <ul style="list-style-type: none"><li>● Fossils are made in sedimentary rock through thousands of years of pressure, rock movement and heat. There are four types of fossils: Trace, Cast, Mould, and Body or True Form Fossils.</li><li>● A trace fossil is formed when footprints, nests or small organisms are fossilized in amber.</li><li>● Mould fossils are the imprint of an organism that has fossilized.</li><li>● A cast fossil occurs when a mould fossil is filled.</li><li>● True form fossils or body fossils are also known as dinosaur bones or artifacts that can be found around the world.</li></ul> |  |
| <p>Prerequisite Learning:</p> <ul style="list-style-type: none"><li>● Types of Rocks</li><li>● What is a fossil</li></ul>   |  |
| <p>Adaptive Dimension:</p>  |  |



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- Could focus on just one type of fossil if the students need further scaffolding.
- Provide students with an opportunity to listen to information (Auditory), write about what they understand or viewing the word wall (Visual) and use their hands to explore what they know (kinesthetic).

Preparation: (Equipment/materials/set-up)

- Materials
  - Small Toy Dinosaurs or Animals.
  - Pre-Made Salt Dough
  - White Glue
  - 30 Pre-made Worksheets
  - Pre-Load Fossil Rock Anthem YouTube Video
  - Pre-Made Word Page To Help Describe the Different types of fossils

Set: (10 Minutes)

- Set up and watch the Fossil Rock Anthem Video
- *Now that we have watched this video, what do you think we are going to be learning about today in Science. Fossils. Great! Can anyone tell me what a fossil is?*
- *Where do fossils come from? or Where are they found?* Fossils can be found in sedimentary rock. *Why is it important to learn about fossils?* They represent what existed in our past.
- *Does anyone know how many kinds of fossils there are? No? That is okay as*

Student Engagement/Classroom Management Strategies:

- 1-2-3 Eyes on Me
- Clap if you can hear me.
- I will know you are ready when...
- 10, 5 and 1 minute warnings



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*we are going to learn about them today.*

Development: (20 Minutes)

- Has anyone here ever broken a bone? What does the doctor give you when you break a bone? A Cast.
- *How does a doctor make a cast? They use your arm as a mold and form the cast around your arm.*
- *Did you know that there is a type of fossil called a cast and another called a mold! Show examples.*
- Pull out word wall.
- *A mold is a fossilized backwards impression of a plant, animal, bug or whatever other object that may be fossilized.*
- *A cast occurs when a mould is filled with sedimentary rock and squished or compressed to fill that mould.*
- *The third type of fossil is a trace fossil which is fossilized nests, footprints and other traces of historic creatures.*
- *The last fossil is probably the most common fossil for you, which is the true form fossil or the body fossil. This includes dinosaur bones.*
- *Explain the task. Worksheet and all.*



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| <ul style="list-style-type: none"><li>• <i>Today we are going to make a few different fossils with some dough. These fossils will take a bit to dry, so we will have to look at them another day as well. I would like each of your to clear off your desk. I am going to hand out a piece of dough, some rolling pins and a fun item to help create your fossils with.</i></li><li>• <i>Provide 10- 15 minutes for students to explore and create the four different types of fossils.</i></li></ul> <p>Closure: (10 Minutes)</p> <ul style="list-style-type: none"><li>• Would anyone like to share how they made each type of fossil?</li><li>• There are four different kinds of fossils because they are made up of or created differently. Do you think real fossils can be made this quickly? Why or why not?</li><li>• we are going to put our papers to the side to let them dry, but thank you for participating today.</li></ul> | <p>Your job as a student is to create all four types of fossils in four separate pieces of dough</p> <p>10 Minute Warning</p> <p>Five Minute Warning</p> <p>Clap If You Can Hear Me</p> |
| <p>Extra Teaching Resources:</p> <ul style="list-style-type: none"><li>• Background Information<ul style="list-style-type: none"><li>○ <a href="http://teachersnetwork.org/teachnet-lab/glasgold/different_kinds_of_fossils_datab.htm">http://teachersnetwork.org/teachnet-lab/glasgold/different_kinds_of_fossils_datab.htm</a></li><li>○ <a href="http://www.enchantedlearning.com/subjects/dinosaurs/dinofossils/Fossiltypes.html">http://www.enchantedlearning.com/subjects/dinosaurs/dinofossils/Fossiltypes.html</a></li></ul></li><li>• Lesson Preparation</li></ul>   |   |



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- Make Your Own Plaster of Paris  
<http://www.kidsplayandcreate.com/make-your-own-plaster-of-paris/>
- Worksheet:
  - <https://www.teacherspayteachers.com/Product/Types-of-Fossils-Activity-1097321>
  - [https://docs.google.com/document/d/1xwQT6A-WUjWywtQevULUcXOCmG\\_1kS1JvScK56DAs6Q/edit](https://docs.google.com/document/d/1xwQT6A-WUjWywtQevULUcXOCmG_1kS1JvScK56DAs6Q/edit)
- Adapting or Alternative Lessons Ideas
  - <http://deceptivelyeducational.blogspot.ca/2012/06/clay-leaf-imprints-fossils-lesson.htm>

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## What are the different types of fossils?

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# Easy dough Recipe

(have dough pre-made for students)

## Ingredients

- 2 cups plain flour
- 1/2 cup salt
- 1/2 Cup cold water

## Steps:

1. Combine plain flour and salt.
2. Add water.
3. Knead well (if consistency is too wet, add a little flour)

### Cast Fossil

(pour liquid glue after making an impression)

- Minerals fill in spaces left by a decayed organism
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### Trace Fossil

- Evidence of organism's activity (footprints, nests)

### True Form Fossil

- Actual organism Preserved by ice or tree sap

### Mold Fossil

- Buried in sediment and then decays, leaving an empty space (impression)



When dough hardens, have students glue onto handout. Label and state a description for each type of fossil.