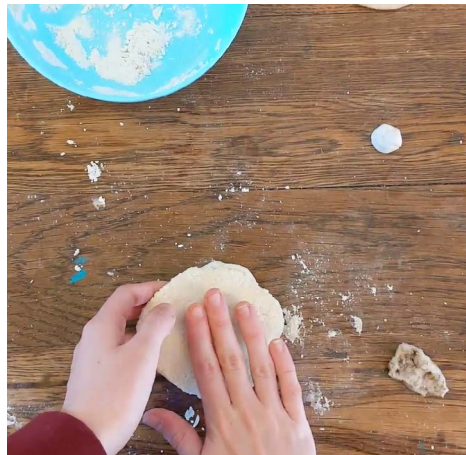
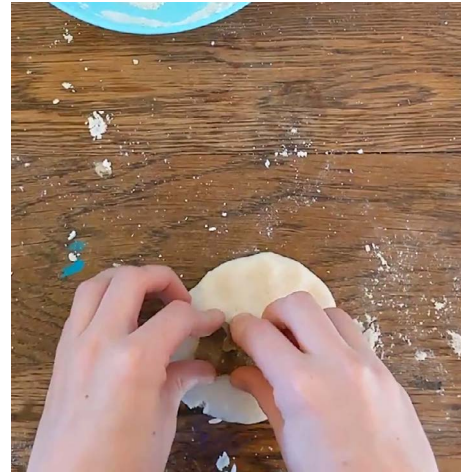


MOLDS & CASTS: FOSSILS AND CRAFTS



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FAMILY ART & SCIENCE ENCOUNTER



OHIO
UNIVERSITY



KENNEDY
Museum of Art



MOLDS AND CASTS: Fossils and Crafts

Welcome to Family Art & Science Encounters with the Kennedy Museum of Art and the OHIO Museum Complex! This month, we're exploring how to make molds and casts and how this process relates to both art and science! This project doesn't have a particular result, so have fun with the process and see what you can come up with!

Materials

- Flour
- Salt
- Cold Water
- Found Objects

Optional:

- Paint
- Regular White Glue (Elmer's Glue)
- String



Step 1: Making Salt Dough

First, we'll mix our dough so we have something to work with! Here's the recipe.

- 2 parts flour
- 1 part salt
- 1 part cold water

Mix the flour and salt together first.

Then mix in the water slowly until the dough is smooth.

Knead your dough for 10 minutes, and let it rest for 20 minutes.

On the left side, you'll find all the instructions for the project. On the right, you'll find some interesting ways casting happens out in the world!

Artists use many materials to make artwork, including bronze, clay, and resin (a kind of plastic).

Although fossils look like they're made of bone, they're actually made of rock! This is the difference between a fossil and a skeleton.

(Stop here to make molds and casts)

Arrange molds and/or casts on a baking tray

Bake at 250° F (120° C) until dry and hard, or about 2 hours.

Allow to cool completely.

Step 2: Finding Objects

While your dough is resting, look for small objects from your environment. These can come from inside or outside, like sticks, toys, or bottle caps. Make sure that your object is not too fragile, so that you can press it into the dough. Otherwise your object will be unharmed!



Why do you think fragility matters while making a cast? Do the same rules apply to bones, leaves, and other natural materials that can be made into fossils?

(Optional) Create your own object using salt dough. Make sure to bake this before pressing it into raw dough.

Step 3: Making a Mold

Set aside about a third of your dough for later.

Using the remaining two-thirds, separate your dough into small handfuls, and flatten these into discs, like cookies! Press one of your objects into a raw salt dough disc.



Artists use lots of different inspiration to make sculptures or objects. What inspires you? What objects do you like?



Some fossils are made this way too! Mold fossils are imprints left by a hard object on rock. These items need to be buried under layers of sediment to be pressed hard enough for a mold to be made.

(Optional) poke a hole through the top of your dough so that you can display the mold later.

Once you have a few molds, have an adult preheat your oven to 250° F (120° C). Arrange molds on a baking sheet so that they are not touching. Bake until dry and hard. This will take around 2 hours depending on thickness. Once done, allow to cool completely.

Step 4: Making a Press Cast

Press some of your remaining raw dough into a baked mold. Remove your dough, and set aside to bake. When you're finished making casts, bake these just like the molds, at 250° F (120° C) for around 2 hours.



Step 5: Experimenting!

Try fitting a cast you've made back into its original mold.

Try using a mold of the front of an object and one of the back to make a replica.

Try making a mold of one of your casts. Is it very different from the original object?

See what you can come up with! This project is about exploring process, so there's no right or wrong way to do it!

Step 6: Display Your Projects (Optional)

If you'd like to display your molds or casts, try painting on your baked dough with acrylic or watercolor paint.

Before baking, you can also add a hole through the dough to thread a string through.



Thank you for joining us on this month's Virtual Family Art & Science Encounter! Make sure to check out the online exhibition of *Janus: There's More to What You See* for inspiration on your casts at: <https://www.ohio.edu/museum/art/exhibitions/janus-theres-more-what-you-see>

And when you finish your projects, make sure to tag us on Instagram at: @KennedyArtMuseumEDU or tag post to our Facebook group: Kennedy Museum of Art Experiences Group

Clay casts also need to be "baked" to harden. They're heated in a kiln at much higher temperatures for much longer.

After a mold fossil is made, a cast fossil can be formed. These replicas of molds fossils are formed naturally when the space left behind by a mold fills with sediment.

Bronze casting involves pouring molten hot metal into a mold and waiting for it to harden. Sort of like chocolate, but a lot hotter! Try using meltable chocolate to create your own cast. Be sure to use cocoa powder on your mold to prevent the chocolate from sticking.

A lot of decoration in casting goes on after it's hardened. Find some mugs or statues you might have in your house, if it has decoration, do you think it was added after? Why?

Where are fossils usually displayed/found? Have you seen fossils in person before? Where was it?