

Encapsulation Art and Preservation

(art+science, art+technology)

The project is actually very simple and easy to complete successfully. Two basic ingredients are all that is needed. ArtMolds' water clear AquaClear resin and colored molding clay. To cast each piece, the student will need a molding container. But since the clear liquid plastic sticks to many things, you will need the specific container listed in the Materials section in which to pour the liquid plastic.

Preparation

Collect pictures of collages and assemblages to use as examples in class. In addition, print photos of insects captured in amber from the Internet. Use your examples to begin a class discussion on ancient and modern day encapsulation.

Process

Once all the materials are handed out instruct the class to create a small diorama scene similar to the marine scene on the right. They may copy the scene if they wish or create their own as long as the pieces are small enough to fit within the bottom of the container. You will need to allow at least one inch around the outside so that the diorama sits within that space.

To give the artwork more feeling and depth you will want to create pieces for the back ground, mid ground as well as foreground. These will be placed in successive layers—that is each element will be added to successive layer of the liquid plastic after the plastic is poured and then hardens.

To prepare the liquid plastic for pouring into the mold you need to measure out equal parts of AquaClear Part A and Part B. You can just eye-ball the levels poured into two cups to assure both levels are the same. It's important to mix the right volume measurements to ensure the material hardens nicely in the proper amount of time.

It's also crucial to decide if your casting will be done in single layer, or multiple layers which is actually called "embedding." Single layered castings of one inch thickness are possible, but the liquid plastics can produce excessive amounts of heat while hardening. If the object you wish to cast can be harmed, discolored, or ruined by high temperature it's best to "embed" the artifact in multiple layers of plastic. Each layer can be 1/4- to 1/2-inch thick. Thinner layers produce a lot less heat. So if you plan on thin layer then only pour out equal parts in small amounts.

Layering takes more patience and time because each layer must be mixed, applied and allowed to set before pouring the next. Layering with AquaClear clear plastic resin produces much better results than single layer casting of large objects, especially with heat sensitive objects. It also appears more artistic and sculptural as it gives great dimension to your piece.

Surprisingly, you cannot tell where one layer ends and the next begins unless you mix coloring agents into the different layers. If all layers are clear, no boundary lines are visible.

You can take advantage of this phenomenon by adding depth to your piece. For example in creating this marine piece put your seaweed elements on the first layer then as you pour in layers place one or two clay fish in succeeding layers to give the appearance that the fish are swimming all around rather than crowded one-dimensionally in a single layer.

Patience is needed as each layer takes about two hours to dry which means you'll have to carry on the completion of the project through several class periods.

To create the marine scene pictured above just follow the steps in the photos. It should take one class period to pour a base layer and to create three fish and three or four seaweed elements.

To help the time you can start pouring the first layer of about a half inch of liquid plastic while each student is working on their dioramas. In that way the layer has a chance to set during class and the first elements can be added and a second half inch layer of liquid plastic can be poured by the end of the class.

Then during the next class another element can be added at the beginning of class and another layer poured on it. So the third layer can be added by the end of class as well as the final layer of clear resin. Thus the project can be demolded at the beginning of the third class period.

Directions

1. Assemble your materials.
2. Cut about a 1/2 inch chunk of colored clay and roll it out about 1/4 thick to 6-inches in length, about the size of a drinking straw.
3. Take a second and then a third color and repeat the process. Place the colored strips adjacent to each other and stick them together.
4. Flatten the strips by rolling a round object such as a marker pen.
5. Using a plastic knife cut out three fish shapes. Add fins on top and bottom with a color that contrasts. Don't forget to add eyes on both sides of the fish since it will be seen from both sides.
6. Roll out 4 more strips in each color and flatten for the seaweed elements.
7. Using two paper cups pour out equal parts of A and B of the AquaClear clear casting resin. About an inch in each cup. Pour one part into the other. It doesn't matter which. Mix until the cloudiness clears. Pour the mixture into a clean 2.5 quart container to a height of about a 1/2-inch. Set aside undisturbed until set.
8. Once the first layer is dry you can add your first pieces of art—the seaweed. Arrange the four pieces so they come out of one point and spread upwards. You can twist a few to give more realism. Once you are satisfied you are ready to add the second layer of clear resin. Repeat the same mixing procedure as you did in creating the first layer and pour in a second layer to cover the seaweed. Set that aside and let it cure undisturbed.
9. Once the second layer is dry and encapsulates the seaweed you are ready to add the first fish. Place the fish in such a way as it can be seen through the seaweed. Now add a third layer of liquid resin following the same method used in creating the first two layers.



Grade Levels 5-12

Objectives

- Students will discover how ancient fossils were first preserved whole in tree sap known as amber
- Students will explore the creation of a simple mold making and the creative process of designing art to fit within a fixed space.
- Students will view the results of chemical substances and process and understand how they can be harnessed to create art and to communicate ideas and to develop new technology.

Materials

- [ArtMolds® AquaClear](#) (33564-1007)
- (2) 2-Quart Kits
- [Crayola® Modeling Clay](#) (33216-10016)
- (5) 1-lb. 4-color assortment
- [Craft Sticks](#), (60433-1002)
- 1 package
- Plastic paint mixing buckets 2 1/2 quart
- 1 for each student (paint or hardware store)
- Sand paper, assortment (paint or hardware store) 1 package
- Paper towels(grocery store)
- Plastic knives (grocery store)
- (1 package)
- Paper cups, 8-oz. (grocery store)
- 6 per each student

National Standards

Visual Arts Standard 1

Select media, techniques and processes; analyze what makes them effective or not effective in communicating ideas; and reflect upon the effectiveness of their choices.

Science Content Standard

Life Science & Technology

Abilities to distinguish between natural objects and objects made by humans.



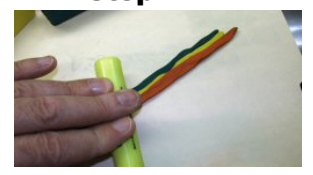
Step 1



Step 2



Step 3



Step 4



Step 5



Step 6



Step 7



Step 8



Step 9



Step 10

- ers. Let that layer set Add the second fish and cover with a fourth layer of resin After that layer has set add the final fish and cover with a final layer of resin and set aside to dry.
10. Once the final layer is dry you can begin the process of demolding. Squeeze the container to work it free from the casting. Be patient as there was a vacuum created between the casting and container when the AquaClear resin set. You must break the seal. Just carefully work the container — eventually the casting will pop free.

Assessment

Display all artwork. Have students explain their experiences. Then summarize the lessons learned.