

## Color-Enhanced Plaster Casts

Capture the beauty of nature, then add your own artistic touch with a little (or a lot!) of color.

### (art + science)

Artists and plaster have a long history together.

In ancient times, plaster was first used as a painting surface for frescoes. Beginning in the Renaissance, plaster casts enabled artists and scholars to study anatomy, architecture, and botany in the convenience of their own classrooms and studios.

Initial plaster renderings created by sculptors such as Auguste Rodin provided an inexpensive means of drafting their art before cutting into stone or casting it in bronze.

Nineteenth century museums and academies were able to impress and inspire their patrons with highly accurate plaster reproductions of some of the world's most significant works of art.

In modern art, new technologies and combined materials have allowed artists such as George Segal, Peter Agostini, and Jeff Koons to create archivally sound, durable sculptures in plaster that defy the long-held belief that plaster is a medium suitable only for reproductions and craft projects.

Making a plaster cast isn't difficult, and the results can be very beautiful and satisfying. This process leads the way through a simple casting and the application of color. Powdered tempera can be brushed against the plaster to reveal fine details much the same way sculptures age as dust settles into the recessed areas. Use a small amount of powder for subtle definition, or more powder for a bolder look.



**GRADES 3-12** Note: Instructions and materials are based upon a class size of 24 students. Adjust as needed.

### Preparation

1. Each student will need a cardboard box or box lid. Materials listed in this lesson plan will be based on a box that measures approximately 6" x 6" or 5" x 7". Larger sizes may need more, smaller sizes would use less.
2. Break modeling clay apart at score lines. Plan on 1/4 lb per student.
3. For best results, provide a non-stick surface for students to work on, such as a piece of wax paper, freezer paper, or a heavy plastic bag that will lie flat.

### Process

1. If the box has a coated finish, it does not need to be lined. Natural cardboard boxes can be lined with masking tape to make



### Materials (required)

[Sargent Art Non-Hardening Modeling Clay](#), White, 5 lb block (33281-1025); share one among 20 students

[Pottery Plaster No. 1](#), 10 lb bag (33500-1010); share one bag across class

[Richeson Powdered Tempera Paint](#), assorted colors (00069-); share at least one jar across class

[Nitrile Powder-Free Disposable Gloves](#), assorted sizes (35200-); need one glove per student

[Masking Tape](#), 1" x 60 yards (24126-1024); share three rolls across class

[Rolling Pin](#), Non-stick, 12" (30345-0000); share one among 2-4 students

[Boxwood Clay Tools](#), set of 10, 6" (30304-1069); share one set among 6-8 students

Large plastic mixing bowl

Plastic cup to scoop plaster

One small box per student

[Blick Scholastic Golden Taklon Round](#), size 4 (05385-1004); need one per student

[Holbein Watercolor Atomizer Bottle](#), 2 oz (02912-1003); share one between two students

### Materials (optional)

[Rectangular 6-Well Palette](#), 3-5/8" x 5-1/4" (03068-1006)

[Art Swabs](#), package of 100 (04826-1006)

[Hemptique Hemp Cord Spools](#), assorted colors, 205 ft (63830-)

[Krylon Crystal Clear Acrylic Coating](#), 6 oz (21703-1006)

[Blick Matte Acrylic Varnish](#), 8 oz (00727-)





## Process, continued

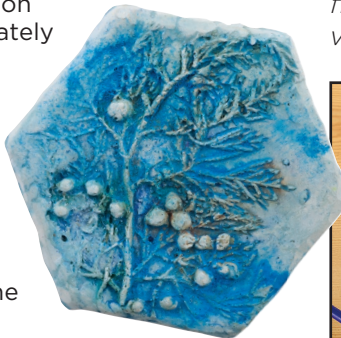
them leak-resistant. The tape only should only cover the bottom and 1" on the sides.

2. Pinch the modeling clay block from the sides to begin flattening it, then roll it into a slab that will fit inside the box, approximately 1/4" thick. To make sure it will fit in the box and indicate the casting area, turn the box upside down and press it into the clay.
3. Press objects into the clay slab to create textures and patterns. For first-time casts, it is recommended to start with a simple object, such as a leaf. Complicated shapes may cause undercuts and be difficult to cast. Delicate flowers may leave seeds that are difficult to remove from the clay. Roll over the object to make sure it leaves an even, detailed imprint, then remove.
4. Again, turn the box over and press it into the clay, then cut on the inside of the line created with a plastic knife or wood tool. Carefully lift the clay and place it in the box, impression-side facing up. For best results, use a wooden tool to press the clay against the sides of the box to prevent the plaster from leaking underneath the clay.
5. Pour four cups of room temperature water into a large plastic mixing bowl. Add six cups of plaster. Wearing a disposable glove, mix the plaster by hand, smoothing any lumps with fingers and against the walls of the bowl to work them out. The plaster should be about the consistency of soft-serve ice cream.

Less plaster can be mixed up, but mixing larger quantities at a time may lead to the plaster setting up before it can be distributed.

NOTE: This lesson plan specifies Pottery Plaster #1, which has the benefit of being more durable than Plaster of Paris, and does not contain silica. As with any material that can become airborne, try to minimize dust by keeping it contained. Eyewear protection and a dust mask are recommended to protect against irritation.

6. Pour or scoop the plaster into boxes directly on top of the clay impression. Aim for approximately 1/4" of plaster or less. Tap the bottom of the box against the table for one minute to make sure air bubbles release and the plaster levels itself. If desired, gently lay the ends of a piece of string onto the back side (with the wet plaster facing up) to create a hanger. Press the ends into the plaster until they are covered.
7. Allow to dry for a minimum of 20 minutes. The plaster is set when the back side feels warm and moist and no longer appears shiny.
8. Remove the casting from the box and pull the clay slab away from the plaster. Modeling clay may be saved and reused. While the plaster is still moist, rough edges can be adjusted by cutting them with a pair of scissors or smoothing them with sandpaper.
9. The plaster does not need to be completely dry before adding color. Distribute a small amount of powdered tempera color in palette wells. Select a color, dip a dry brush into the powder, and tap it over the palette to remove any excess. Brush over the impression to reveal the fine details of the cast.
10. Impressions may be enhanced with a single color or multiple colors. Some ideas to try:
  - Use a swab to smooth powder on the plaster and then blend.
  - Spritz the surface of the plaster with a small spray bottle filled with water. Colors will blend and run into recessed areas.
  - Dipping a finger in the powder, then smoothing it lightly over the raised areas of the impression is a good way to accentuate details. This can be done as a final step.



**Step 1:** Press item into the modeling clay slab to create an imprint. Remove the item, then place clay into the box.



**Step 2:** Pour plaster over the item and allow it to set for 20 minutes. Remove it from the box and pull away the clay to view the casting.



**Step 3:** Brush powdered tempera over the casting to reveal fine details. Spritz with water to set and blend colors.



**- If too much color is applied:**

a) "Lift" excess color with a paper towel. It may be necessary to add water to the saturated area with a brush, spritz it with water, or first dampen the paper towel.

b) Color can also be scratched away from the surface with a wood tool or sandpaper. This is a good way to clean and define edges and also create highlights

11. While much of the color will dry into the plaster, some may rub off. It's a good idea to seal with a spray finish or brush a clear acrylic varnish over the surface when the plaster is completely dry.



**National Core Arts Standards - Visual Arts**

**Creating**

**Anchor Standard 1:** Generate and conceptualize artistic ideas and work.

**Anchor Standard 2:** Organize and develop artistic ideas and work.

