

# Image Transfer on Slab Box

## Art Curriculum Matrix: 7 - 12

<b>Project</b>	Bowls with Natural Impressions
<b>Grade</b>	7-12
<b>Content/theme</b>	Vessel and identity
<b>Objectives</b>	<ul style="list-style-type: none"> <li>• Build slab box using 2D template to create 3D form</li> <li>• Apply imagery to surface of form that relates to questions of identity</li> <li>• Identify ways artists convey personality in nonfigurative portraits</li> </ul>
<b>Essential Questions</b>	<ul style="list-style-type: none"> <li>• What defines you in the public/external environment?</li> <li>• What defines you privately/internally?</li> <li>• How do you represent those specific ideas with imagery? Patterns? Color?</li> <li>• How do you highlight a certain part of a piece?</li> <li>• How do you make one space (inside) feel different from another (outside)?</li> </ul>
<b>Demos/Skills</b>	Measuring and cutting paper template Rolling slab Cutting sides of box using template Assembling box with scoring and slipping Glazing Transferring decal images Using mixed-media materials for surface/compositional elements
<b>Vocabulary</b>	score slab template decal image transfer inside/outside interior/exterior public/private mixed-media
<b>Artist/Culture References</b>	Contemporary Examples: <ul style="list-style-type: none"> <li>• Matt Metz</li> <li>• Richard Notkin</li> <li>• Farraday Newsome</li> <li>• Kevin Snipes</li> </ul>
<b>Materials</b>	Clay (5 lbs. per student) Card-stock paper (6 sheets per student) Rolling pins Newspaper/canvas/surface for rolling clay that won't stick Rulers Pencils Scissors Fettling knife/pin tools (cutting slabs & scoring) (Underglaze &) glaze for finishing surface Plastic for covering work to slow drying Storage boards/bats Decal paper Sponges Rubber rib Wire tool *Optional Mixed-media material (flocking, gold-leaf, wire, paint, etc.)

# Process

Prep Activities			
	Activity	Steps	Dialogue
1	Nature walk & collection of natural objects (Leaves, grass, small sticks, pebbles, bark, pods, etc. Look for flat objects. Some height is ok, but if too large will crack slab)	Group discussion on what identity means and how it is reflected through objects	<ul style="list-style-type: none"> <li>• How do we define identity?</li> <li>• If you had to describe yourself to a stranger, how would you describe who you are?</li> <li>• What objects do you have in your home that relate to your identity?</li> <li>• How do objects communicate meaning about a person? How is this process different from reading or hearing a story about a person?</li> <li>• How does your external self (appearance, behavior, etc.) communicate your internal self?</li> </ul>
2	Complete individual identity survey	1. Students complete written survey to identify what is important to them	<ul style="list-style-type: none"> <li>• When you rubbed your hand over your object, describe the texture you felt.</li> <li>• When you look at the marks your object made in the clay, can you imagine how it feels? How?</li> <li>• What does a texture look like when it is translated into clay?</li> <li>• How does the impression change when you push into the clay forcefully?</li> <li>• What does it look like when you group a lot of impressions close together?</li> </ul>
3	Complete thumbnail sketches of box concepts that express identity (optional)	*Note: Boxes could be standard if the emphasis is on building basic hand building skills. For a more advanced class, the design and dimensions of the box could change to reflect identity theme.	<ul style="list-style-type: none"> <li>• What elements of your identity will you highlight? How can you show those concepts visually without relying on words or symbols?</li> <li>• How can you create a different atmosphere on the inside versus the outside? With color? Juxtaposition? Density? Subject matter?</li> <li>• Will your box be closed or will you be able to see into the box?</li> <li>• Will it have a lid?</li> <li>• How will the box look different from different perspectives/views? How can you use that to reinforce different aspects of your identity?</li> </ul>
4	Create a paper template for box form	<ol style="list-style-type: none"> <li>1. Based on thumbnail sketch, measure walls with rule and mark on card stock</li> <li>2. Cut card stock template for 6 sides: 4 walls, floor and top</li> </ol>	*Note: This could potentially be an interesting collaboration with math curriculum in using geometry to figure out area of the box, etc.
Construction			
5	Roll slab(s)	<ol style="list-style-type: none"> <li>1. Roll slab making sure it is larger enough to fit each template.</li> <li>2. Focus on even rolling (can use 2 flat 1/2" sticks as guides)</li> </ol>	<ul style="list-style-type: none"> <li>• What helps in rolling an even slab?</li> <li>• Is it better to do small tiny rolls or large rolls?</li> <li>• What part of your hand should you use?</li> <li>• Does turning the slab help? Why?</li> </ul>
6	Cut slab using template as guide	<ol style="list-style-type: none"> <li>1. Lay templates on slab</li> <li>2. Cut around perimeter of templates using fettling knife or pin tool</li> </ol>	
* Note: It would be good to break the work cycle between step 6 & 7 since the slabs will be easier to attach without marring if they have time to set up.			
7	Score and slip wall and floor slabs together	<ol style="list-style-type: none"> <li>1. Score &amp; slip edges of slabs</li> <li>2. Apply slip or water</li> <li>3. Apply pressure to join</li> <li>4. (Optional) Add coil on interior to strengthen corner joins</li> </ol>	

## Process cont.

	Activity	Steps	Dialogue
8	Add sculpture/ imagery to box	1. Using slab or modeled clay, add to box, knowing that more detail can be included post-firing with decals and mixed media	<ul style="list-style-type: none"> <li>• What elements/details/imagery do you want to add to your box now? Add in the glaze firing? Add later after it is fired?</li> <li>• Can you create a space/surface now in your piece that you can add to at a later stage of the process?</li> </ul>
9	Dry and bisque box	<ol style="list-style-type: none"> <li>1. Let dry under plastic so moisture evens out to prevent cracking</li> <li>2. Uncover to completely dry</li> <li>3. Bisque</li> </ol>	
10	Glaze	1. Glaze pot using techniques students are familiar with, keeping in mind that more detail will be added post-firing	
11	Decal printing	<ol style="list-style-type: none"> <li>1. Print with laser printer onto glossy surface of paper</li> <li>2. Allow ink to dry 5 minutes</li> </ol>	
12	Decal transfer technique application	<ol style="list-style-type: none"> <li>1. Clean surface of ceramic object and slightly wet (so can shift decal around for placement)</li> <li>2. Cut out decal with small extra space around edge</li> <li>3. Soak decal in shallow tub of water for minute</li> <li>4. Place decal in desired position on piece</li> <li>5. Slide off backing paper</li> <li>6. Starting from center to outer edge, smooth decal against surface (rubber rib works well) to remove bubbles and adhere to surface</li> </ol>	<ul style="list-style-type: none"> <li>• How can you add to your story about your identity with the decal layer?</li> <li>• Does the decal enhance a form or surface that already exists or create a new layer?</li> </ul>
13	Setting/firing decal	<ol style="list-style-type: none"> <li>1. Option 1: spray with acrylic varnish</li> <li>2. Option 2: fire/bake at 350 for 10-13 minutes</li> <li>3. Option 3: Fire to cone 06. Color will burn out and decal will turn sepia tone</li> </ol>	
14	Mixed-media additions/surfaces	1. Use flocking, paint, gold leaf, wire, etc. in combination with fired ceramics	<ul style="list-style-type: none"> <li>• How does introducing a new material or surface introduce a new language/create a different feeling?</li> <li>• How can you use mixed-media to enhance your story about who you are?</li> </ul>
15	Reflection		<ul style="list-style-type: none"> <li>• What does someone know about you by looking at your identity box?</li> <li>• How did you represent aspects of yourself through visual elements (as opposed to relying on words or established symbols)? Was that hard? What was your process for coming up with new ways to represent abstract ideas visually?</li> <li>• How did you differentiate between your public and private selves?</li> <li>• How did you create different spaces/atmospheres within the same piece? What is the relationship between the inside and outside of your box?</li> <li>• How did your placement of elements contribute a greater understanding of your identity?</li> <li>• How does the mixture of materials and processes add to our understanding of your identity?</li> </ul>



# Identity Survey

## Teaching Notes

Identity surveys help students try to answer the questions:

- Who Am I?
- What shapes my identity?

Surveys can be formatted as a written worksheet or as an identity map. The description on Visual Thesaurus outlines the identity map approach well:

<https://www.visualthesaurus.com/cm/lessons/mapping-your-identity-a-back-to-school-ice-breaker/>

Questions are intended to help students get beyond superficial ideas of identity. Having students do these kind of exercises as a precursors to the lesson could be useful in helping students brainstorm new ways of visually representing themselves and avoid often-used symbols such as hearts, national flags, peace signs, soccer balls, etc.

### Possible questions:

- What is your name? Where did your name come from?
- What other biographical information is important to you?
  - » Where you live
  - » Your ethnicity/race
  - » Your age
  - » Your gender/sexuality
  - » Your family role
- List at least seven adjectives that you would use to describe yourself.
  - » What 3 words would your family or friends use to describe you?
  - » What words might others use to describe you that you would not choose for yourself?
  - » What are some aspects of your identity that you may not present to others but that you still want them to know about?
- List 3 important relationships in your life (e.g., friend, brother, daughter, nephew)
- List 5 things that you love
- List 5 memories too have and describe how you felt at those times
- List 3 accomplishments
- List 5 fears
- List 5 wishes or hopes



# Gold Leafing Ceramic Work

Mika Negishi Laidlaw

Most of what is sold as “gold leaf” is composition metal leaf, and not real gold.

Prices range as follows:

Composition Gold metal leaf about \$7-9 for 25 sheets of 5.5”x5.5”

Real gold leaf 22K about \$90-100 for 25 sheets of 3”x3”

## **Prepare an appropriate ceramic surface to apply gold leaf:**

Unfired clay –too dusty for gold leaf to stick

Bisque ware—too porous

Fired to maturing temperature without glaze—best surface to apply gold leaf

Glaze fired ware—workable if the glaze is relatively smooth and not too dry

## **You need:**

Composition gold leaf (also comes as silver and copper colors)

Adhesive (bottle or spray)

Soft brush or sponge brush

Wax paper (optional)

Sealer (bottle or spray)

Scissors

## **How to apply**

- Prepare the surface to apply gold leaf. If the work is dusty, wash and let it dry.
- Apply a thin coat of metal leaf adhesive with soft brush/sponge brush.
- Let the adhesive dry for one hour. The adhesive should be tacky to touch before applying gold leaf.
- Carefully lift a sheet of gold metal using wax paper or brush, and apply to a tacky surface.
- Keep applying small piece of gold leaf at a time, overlapping edges to cover the entire surface.
- Once the surface is covered, use a soft brush to remove loose particles. You can rub lightly with a piece of soft fabric.
- Allow the piece to dry completely (24hours) then apply a thin coat of sealer. Sealer protects the gold leaf, and makes it last longer.



# Resources for Identity Box

## 7-12 Lesson

### Identity Resources:

Visual Thesaurus guide to Identity Maps. Good description of process of identity mapping with examples. Site is littered with advertisements, but could extract info for a lesson.

<https://www.visualthesaurus.com/cm/lessons/mapping-your-identity-a-back-to-school-ice-breaker/>

Online version of Myers-Briggs Personality Test. This site was the easiest online survey I found for personality mapping. 12 minute test, and could be good to get past surface definitions of identity.

<https://www.16personalities.com/free-personality-test>

### Lesson Resources:

High School lesson plan on Personal Clay Box. Lesson plan for slab box made with template with emphasis on construction, measuring, and math.

<https://www.cantonart.org/media/1/5/21clay.pdf>

### Material/Technical Resources:

Article: How to Handbuild a Hexagonal Jar Using a Template. Short article with photos on building a clay box from a template.

<http://ceramicartsdaily.org/pottery-making-techniques/handbuilding-techniques/how-to-handbuild-a-hexagonal-jar-using-a-template/>

Video: How to Make and Design a Stiff Slab Vase, Neil Patterson. In-depth video on building slab vase with free-form profile. Could be a good alternative approach for advanced students.

<https://www.youtube.com/watch?v=XVRkHQYnVv>

Technical Handout: Laser Decals for Ceramics, Linda Arbuckle. Arbuckle's handouts are a great teaching resource. She combines seamlessly combines practical information with technical information and makes it accessible.

<http://lindaarbuckle.com/handouts/laser-decals-for-ceramics.pdf>

### Artist Resources:

Profile: Richard Notkin, Craft in America. A great 20c. ceramist talking about how he includes political themes he is passionate about in his work. Video well produced by PBS.

<https://www.youtube.com/watch?v=DPNJ-vfogFg>

Profile: Kevin Snipes, Cleveland Institute of Art: Alumni. Short 3 minute video produced as CIA promotion, but great shots of Kevin working as he talks about his career as an artist.

<https://www.youtube.com/watch?v=lcswoGcX4PO>

### Material Suppliers:

Decal paper

Bel Inc, 6080 NW 84 Avenue, Miami Florida 33166

<http://www.beldecal.com/>

[http://www.beldecal.com/laser\\_paper.html](http://www.beldecal.com/laser_paper.html)



*This activity is made possible by the voters of Minnesota through a grant from the Minnesota State Arts Board, thanks to a legislative appropriation from the arts and cultural heritage fund.*



## Decorative Materials

Material	Description	Decorative techniques	Stage applied	Can combine with...	Source	Advantages	Low/Mid/High Fire
<b>Slip</b>	Colored liquid clay that is decoratively applied to the surface of a pot	<ul style="list-style-type: none"> <li>Slip trailing</li> <li>Mishima/inlay</li> <li>Paper resist/stencils</li> <li>Sgraffito</li> </ul>	leather hard	<ul style="list-style-type: none"> <li>underglazes</li> <li>washes/stains</li> </ul>	Commercial or individually mixed	Changes the color of the pot; used with many decorative techniques	Formulated for low, mid, and high fire. Need to use slip that corresponds with clay body and firing temp.
<b>Engobe</b>	Similar to slip but has more flux (melter). "Engobe" often used as synonym of "slip."	<ul style="list-style-type: none"> <li>Same applications as slip</li> </ul>					
<b>Underglaze</b>	Can be used under clear glaze; can be used like like slip; can be used on top of texture and wiped off	<ul style="list-style-type: none"> <li>Brush on wipe-off stamps/impressions</li> <li>Paper resist/stencils</li> <li>Brush onto bisque surface (under the glaze)</li> </ul>	leather hard, bone dry, or bisque	<ul style="list-style-type: none"> <li>washes/stains</li> <li>slip</li> </ul>	Commercial	Consistent; commercially available; bright colors	All work at low-fire. Most at mid-fire. Some darker colors work at high-fire but need to be tested.
<b>Washes/Stains</b>	Metallic oxide or Mason stain combined with flux + water	<ul style="list-style-type: none"> <li>Brush on wipe-off stamps/impressions</li> <li>Brush on top of raw glaze (over the glaze)</li> <li>Brush onto bisque surface (under the glaze)</li> </ul>	bisque; can be applied to bone dry work but takes more skill	<ul style="list-style-type: none"> <li>slip</li> <li>underglazes</li> </ul>	Individually mixed in 1:1 ratio of Flux:oxide/Mason stain + water	emphasizes texture/impressions; strong color that will impact glaze color	Will work at any temperature and is not temperature specific.
<b>Terra Sigillata</b>	Finest particles of clay applied in layers and burnished to get glossy sheen	Good for raku, pit firing	bone dry	<ul style="list-style-type: none"> <li>slip can be applied over terra sigillata so glossy/matte contrast like Maria Martinez</li> </ul>	Individually mixed	lightly seals surface; glossy sheen and doesn't cover up clay; historic connection	Low-fire only



## Decorative Surface Material Definitions

### Slip/Engobe

*Material:* A homogenous mixture of clay and water. Decorative slip differs from slurry used for joining pieces or produced in the process of throwing. Decorative slips are usually mixed from a recipe and have more flux (melter) than a slurry-slip which is just clay + water. They also often have a colorant added. “Engobe” is often used synonymously with “slip,” but technically, an engobe has more flux than a slip as sits between a slip and a glaze. Slip recipes are designed for specific temperatures (low, mid, high-fire) so that they melt in-unison with the clay body. Therefore, it is important to make sure you choose a slip that corresponds to your clay body and firing temperature.

*Source:* Slips are commercially available pre-mixed or in powdered format. Casting slips are different from decorative slips in they have a deflocculant added which makes the slip behave differently. While it is possible to use a casting slip to decorate, it can cause problems, and it is probably best to purchase only a true decorative slip for classroom use. It is much cheaper to mix a slip by measuring recipe of dry chemicals than to purchase it pre-mixed. This is easy if you have a gram scale, and there are many recipes online for decorative slips at every temperature.

*Mixing:* Slips can be the same color as a clay body or they can be colored with oxides or Mason Stains to create a color that contrasts with the clay body. The most often used slip is a white slip to cover a red, low-fire, terra-cotta clay body in order to get a white ground. To mix a slip, measure ingredients, add water, sieve, let stand for 24 hours for full water saturation. To mix colored slips, start with a white slip recipe and add Mason Stains or metallic oxides to the slip base. To get light pastel color, add 5% Mason Stains. To get a more saturated color, add up to 20% Mason Stains. Metallic oxides can also be added to color slip, however, the percentages vary from oxide to oxide. In general, oxides are much stronger than Mason Stains and should be used from 2-6% in slips.

*Use:* Slips are used with a variety of decorative techniques, including sgraffito, slip trailing, paper resist/stenciling, and inlay/mishima.

*Application:* Slip is usually applied to leather-hard ware before it is bisque fired. There are slips recipes designed to be applied to bisque ware, but they have to be specially formulated for shrinkage. Common examples of these are “flashing slips” applied to bisque ware for wood firing.

Artists often manipulate the consistency of slip through adding a deflocculant or flocculant. This will affect the look of the slip after it is applied. A few drops of saturated solution of epsom salts and water can be added to a slip to flocculate or thicken it. Darvan 7 or Sodium Silicate can be added to a slip recipe when it is initially mixed to deflocculate it or make it appear fluid without adding a lot of water.

### Wash/Stain

*Material:* A solution of a metal oxide and water. Often a flux is added to this mixture to help with melting and adhering to clay body.

*Source:* Not commercially available, but easy to mix by hand.

*Mixing:* Mixed by measuring 50/50 by volume (1 tsp./1 tsp.) of metallic oxide/Mason Stain to flux. For a flux, most people use Gerstley Borate, Gillespie Borate or Frit 3124. Water is added to the powdered chemicals until it is fluid and brushable.

*Use:* Can be used to highlight impressed designs and create color contrast. Wash/stain is brushed on surface and sponged off so it remains only in recessed areas. Also used in combination with glazes to create color variation or used with brush to paint an image. Washes/stains are very strong concentrations of colorants and in many ways can be used as a very strong underglaze. Washes/stains can also be used over glazes. A common technique is brushing a rutile stain over Tenmoku (iron saturate glaze) to create an amber line.

*Application:* May be used under or over a glaze. Usually used on bisque ware but can be used on green ware if careful. Washes are very strong and concentrated. If used too heavily, all washes/stains will look black regardless of the color. Because the metallic oxides are very concentrated, you should always use gloves when handling washes/stains.



This activity is made possible by the voters of Minnesota through a grant from the Minnesota State Arts Board, thanks to a legislative appropriation from the arts and cultural heritage fund.





## **Underglaze**

*Material:* Underglazes are an oxide(s) combined with a small amount of flux (melter) that binds them to the clay body and integrates them with the glaze. Underglazes also have gums added to them which make them very brushable. Underglazes gain their full color with the 'wetting' action of the covering glaze.

*Source:* Commercially available. Purchased wet-mixed in 4 or 16 oz. bottles from ceramic supplier.

*Use:* Underglazes are used for their intensity, a wide range of color, and stability of that color. They are most often used as low temperatures (cone 04), but some colors (darker colors with cobalt, chrome, copper as dominant oxide) are still effective at cone 10 temperatures. Underglazes are used much like slips to add color to a ceramic surface. They can also be used instead of stains/washes to highlight impressed designs. They can also be used in a painterly way and combined with other colors (although it is often hard to tell the intensity and hue of the color before firing).

*Application:* Underglaze can be applied to pieces before or after bisque firing. They should be applied under a glaze (not on top). They are a very uniform and stable decorative material and the raw color you see is dull but similar to the fired color. Often, several layers of brushed underglaze are needed to get an opaque and uniform color. Underglazes are often used in classroom settings because they are commercially available, easy to use, come in a broad range of colors, provide an intense saturated color, can be applied to both green and bisque ware, and are easy to clean up. However, they are expensive!!

## **Terra Sigillata**

*Material:* A liquid suspension of the finest particles of clay that is applied to a bone dry pot. If polished or burnished just after application, may give a high gloss. Acts as a seal or porous clay, making it less prone to absorb moisture. All ancient Greek red-black pottery, Roman red wares, and most Native American pieces were finished with terra sigillata, without the use of glaze. Many contemporary potters who work in earthenware use terra sigillata to seal the foot of their pots.

*Source:* Individually mixed. Not available commercial. To mix = deflocculant + wet + dry materials, blunge, let sit for 2-3 days, siphon off fine-particle mixture. The color of the terra sigillata is determined by the color of the clay used. Most terra sigillata are red, buff or white. However, white terra sigillata (mixed from EPK or OM4 ball clay) can be tinted by adding Mason Stains.

*Use:* Does not make a piece food safe nor vitreous. Does not work above cone 04 since the molecular structure changes at high fire, destroying the glossy sheen. Does not work under a glaze but will be dissolved by glaze over it. Terra sigillata works very well with pit/sawdust firing techniques.

*Application:* Apply to bone dry clay. Usually 3+ coats are needed. Often burnished with a rock, spoon or cloth to help get sheen. Burns out at cone 04 and above.