

CEP Lesson Plan Form

Teacher: Melissa Robinson

Date: 2/27/18

School: Thompson Valley High School

Grade Level: 9-12 (Intro Class)

Content Area: Art

Title: Patina Demo—Complimentary of Lost Wax Casting Assignment

Lesson #: 1 of 1

Content Standard(s) addressed by this lesson: *(Write Content Standards directly from the standard)*

Observe and Learn to Comprehend

- Visual art has inherent characteristics and expressive features

Envision and Critique to Reflect

- Reflective Strategies are used to understand the creative process.

Objectives

Materials and Techniques/Art History and Culture

- After watching a demo on how to apply patinas onto their cast bronze rings, students will be able to infer how they would incorporate patinas on small scale jewelry and large-scale sculptures using the teaching strategy “Connect, Expand, Challenge.”
 - Blooms: Analyze
 - Standards: Envision and Critique to Reflect
 - GLE: Reflective strategies are used to understand the creative process.
 - Art Learnings: Critical Reflection
 - Literacy: Writing down their answers to the teaching strategy.
- After completing the “Connect, Expand, Challenge” reflection, students will be able to experiment painting designs on either their ring or scrap metal using liver of sulfur and/or blue patina.
 - Blooms: Apply
 - Standard: Observe and Learn to Comprehend

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- GLE: Visual art has inherent characteristics and expressive features
- Art Learning: Ideation/Materials and Techniques
- Numeracy: Creating patterns and textures for their designs

Objectives **describe a learning experience** with a **condition** → **behavior (measurable)** → **criterion**. Aligned to: Bloom's – Standards – GLEs - Art learning and, when appropriate, Numeracy, Literacy and Technology. **Should be written as:** Objective. (Bloom's: _____ - Standard: _____ - GLE: _____ -Art learning: _____ -Numeracy, Literacy, and/or Technology)

Understandings/Concepts: (*Big Ideas*)

- Color and surface design
- Pattern
- Emotional Expression

Inquiry Questions/Ideation: (*Essential questions relating knowledge at end of the unit of instruction, select applicable questions from standard*)

- Ideation (connect/expand/challenge)
 - What are some cool ways that you could use patina on your ring designs?
 - If you had a chance to cast another ring or a mini sculpture and had to use patina, what kind of designs, patterns, or textures would you use? Would you use both patinas in your design?
 - Do you think patinas can only be used on sculpture and jewelry, or do you think it would make steel in buildings and inside houses (stairwells) look more interesting? Hint: there are such things as steel patinas.
- Inquiry Questions (related to the objectives)
 - How do you think liver of sulfur and patina strengthen the designs of these pieces?
 - What would these pieces look like if they were kept the color of the metal they were made in (bronze, copper, nickel)?
 - Is there one type of patina that you're interested to work with? Why?
 - Can anyone guess how we would apply liver of sulfur onto metal? How about blue patina?

Evidence Outcomes: (*Learning Targets*)

Every student will be able to: *(Create your own lesson objectives from the standard, follow the ABCD format, using student voice)*

I can: paint patina onto my cast ring.

This means: I can use color to make my ring's design more visually appealing and emotionally expressive.

List of Assessments: *(Write the number of the learning target associated with each assessment)*

- Formative: checking in with students during class time and seeing if they need help. Discussing where students are going conceptually with their work and asking them how liver of sulfur could help them out with that.
- Summative: Melissa will collect pieces at the end and evaluate them with a rubric. She will share with me the results of the rubric.

Materials and Resources:

- Cast bronze ring that I made last Friday. We can also use a scrap ring if that doesn't work.
- Blue patina palette
- Liver of sulfur gel
- Little cups of water
- Paper towels
- Paintbrushes
- Optional: latex gloves
- Powerpoint presentation

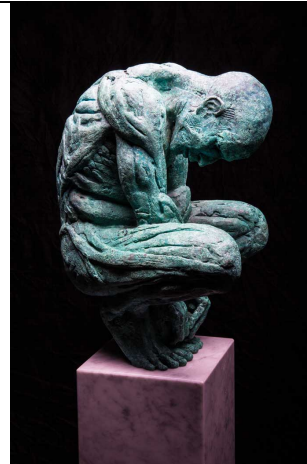
Planned Lesson Activities

<p>Name and Purpose of Lesson <i>Should be a creative title for you and the students to associate with the activity. Think of the purpose as the mini-rationale for what you are trying to accomplish through this lesson.</i></p>	<p>Patina Demo for the lost cast wax ring project</p>
<p>Approx. Time and Materials <i>How long do you expect the activity to last and what materials will you need?</i></p>	<p><i>Time: 20 minutes</i></p>
<p>Anticipatory Set <i>The “hook” to grab students’ attention. These are actions and statements by the teacher to relate the experiences of the students to the objectives of the lesson, To put students into a receptive frame of mind.</i></p> <ul style="list-style-type: none"> • <i>To focus student attention on the lesson.</i> • <i>To create an organizing framework for the ideas, principles, or information that is to follow (advanced organizers)</i> <p><i>An anticipatory set is used any time a different activity or new concept is to be introduced.</i></p>	<ul style="list-style-type: none"> • If you’re curious about how to make your ring stand out from everyone else’s, then you’re in luck. Today, we are going to learn how to apply special metal paint onto our rings.
<p>Procedures <i>(Include a play-by-play account of what students and teacher will do from the minute they arrive to the minute they leave your classroom. Indicate the length of each segment of the lesson. List actual minutes.)</i> <i>Indicate whether each is:</i> <i>-teacher input</i> <i>-modeling</i> <i>-questioning strategies</i> <i>-guided/unguided:</i> <i>-whole-class practice</i></p>	<p><u>Before class</u> Mrs. Robinson will take attendance and introduce my demo.</p> <p><u>(3 minutes) Pre-assessment (whole class discussion/check for understanding)</u></p> <ul style="list-style-type: none"> • How do you think color is applied to metal? • What is liver of sulfur and patina? • How do these materials affect the form and expression of our rings? <p><u>(5 minutes) Powerpoint examples (whole class discussion/check for understanding)</u></p>

- group practice
- individual practice
- check for understanding
- other



Liver of Sulfur



Blue Patina

- Questions: How do you think these patinas strengthen the designs of these pieces?
- What would these pieces look like if they were kept the color of the metal they were made in (bronze, copper, nickel)?

	<ul style="list-style-type: none">• Is there one type of patina that you're interested to work with? Why?• Can anyone guess how we would apply liver of sulfur onto metal? How about blue patina? <p>Wait for students to give answers before transitioning to the demo.</p> <p><u>(3 minutes) Demo: Liver of sulfur and patina (teacher input/modeling)</u></p> <ul style="list-style-type: none">• Take out cast bronze ring I made and show them how it turned out (and ask them what mistakes I made in the process if the ring had melted away too much). Also take out a scrap ring as extra material to demo on.• Take out the liver of sulfur gel and explain how it comes in different forms (another form is breaking down chip tablets, dissolving them in hot water, and painting with paint brush). Also explain that sulfur causes a rotten egg smell, so it's important to keep the classroom well-ventilated.• Barely dip the paintbrush tip into the gel and start painting on a small area of the ring. The gel makes the patina very strong and saturated, which means that it can turn the ring black very quick. To give the ring an iridescent look, use a very small amount on the tip or dilute it a bit with a cup of water. Dip paintbrush in water with liver of sulfur on it like students would if they were working with watercolor paint.• If they don't like the way their patinas turned out (they don't like the iridescent color or it's too dark), they can sand the patina off. They can also sand the patina off if they want to create dark indentations where they carved designs (see nickel bracelet from powerpoint).• What do you think happens if we use a polishing compound on a ring that we've
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	<p>already painted patina on? Answer: It takes off the material. That's why you can't really use patina and polish. However, you can use a gloss spray over the ring once it's dry.</p> <p><u>(2 minutes) Demo: Blue Patina (teacher input/modeling)</u></p> <ul style="list-style-type: none">• Blue patina comes in a silver tin and looks like chips of dried eye shadow. It should be oily enough for students to scrub their paintbrush onto the chips and directly apply the paint onto the bronze ring. If the chips look a little dry, have Mrs. Robinson or me pour a little bit of solvent into the tin to keep them lubricated. <p><u>(3 minutes) Clean-up (teacher input/modeling)</u></p> <ul style="list-style-type: none">• Put ring in a safe place while it is drying, especially somewhere that gives it air exposure. Ideally, put the rings on the tray that Mrs. Robinson uses to collect the wax rings for casting. It should take about twenty-four hours to oxidize and cure.• Patinas are located in the bottom right drawer of Mrs. Robinson's wood desk in the front of the classroom. When you take them out, don't take the entire jar/tin with you. Take one of our plastic dixie cups and put a small amount in. For the liver of sulfur, barely covering half of the bottom is more than enough. For the blue patina, one chip is plenty. Share with your tablemates. When you are done, pour the materials back into their containers and return them to Mrs. Robinson's desk drawer.• Clean paintbrush and dixie cup with soap and water, like you would with a watercolor brush. Squirt a small amount of soap onto your hand, paint the paintbrush onto the palm of your hand until you don't see any patina in your bristles, and rinse with water. Make sure to put brushes away in brush container.
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	<ul style="list-style-type: none"> • Wait for students to ask questions if they have any. • Though it is optional to use patina on their rings for their final grade, the students are required to practice using patina on scrap metal. Consider making textures and patterns with the patinas instead of just painting a large surface with them.
<p style="text-align: center;">Closure</p> <p><i>Those actions or statements by a teacher that are designed to bring a lesson presentation to an appropriate conclusion. Used to help students bring things together in their own minds, to make sense out of what has just been taught. "Any Questions? No. OK, let's move on" is not closure. Closure is used:</i></p> <ul style="list-style-type: none"> • <i>To cue students to the fact that they have arrived at an important point in the lesson or the end of a lesson.</i> • <i>To help organize student learning</i> <p><i>To help form a coherent picture and to consolidate.</i></p>	<p><i>Connect-Extend-Challenge (5 minutes) (individual student work)</i></p> <p>Students will write down the answers to these questions in their sketchbooks or notebooks. They will be turned into me at the end of the class.</p> <ul style="list-style-type: none"> • What are some cool ways that you could use patina on your ring designs? • If you had a chance to cast another ring or a mini sculpture and had to use patina, what kind of designs, patterns, or textures would you use? Would you use both patinas in your design? • Do you think patinas can only be used on sculpture and jewelry, or do you think it would make steel in buildings and inside houses (stairwells) look more interesting? Hint: there are such things as steel patinas. • Asking these questions at the end not only concludes the demo, but it also gives Melissa and I a gage about how we would need to differentiate for depth and complexity.
<p style="text-align: center;">Differentiation</p> <p><i>To modify: If the activity is too advanced for a child, how will you modify it so that they can be successful?</i></p> <p><i>To extend: If the activity is too easy for a child, how will you extend it to develop their emerging skills?</i></p>	<p><i>Access and Expression:</i></p> <p>--If there are students that are allergic to the patinas, then we can have students paint their rings with metallic acrylic paint. Melissa has gloss spray that would protect the paint from cracking or chipping on the ring.</p> <p>--Students with gross motor skill challenges can use a paintbrush with a large grip on it (assistive technology approved) so that they can use the paintbrush without worrying about fine details. They can also paint on newspaper so that they don't have to worry about getting patina on the table. All patinas can be wiped off so that it can seep into the cracks and designs of the ring.</p> <p><i>Depth and Complexity</i></p> <p>--Students can be challenged to work with both patinas on one design, working with finer details to work on their technical painting skills.</p> <p>--Students can create sketches of how they would incorporate patinas into their</p>

	<p>stone inlay project. --In their artist's statement (answering reflection questions from Melissa before turning in their project), they can reflect on how they could use patina for more complex designs for a future ring project.</p>
<p>Assessment <i>How will you know if students met the learning targets? Write a description of what you were looking for in each assessment.</i></p>	<p>I've made an agreement with Melissa that I will assess their patina use when they turn in their assignments. I will most likely use her rubric to assess.</p>

Post Lesson Reflection

1. To what extent were lesson objectives achieved? (Utilize assessment data to justify your level of achievement)

All but one student completed the Connect-Expand-Challenge exercise (with that one student being an independent study Metals 2 student). This meant that even the two students that chose not to work and participate in Melissa's class agreed to fill out the questions (though they were one-word answers). For these students, the fact that they were willing to fill out the sheet regardless at least showed they had some respect for my requests. They could've easily blown it off or fought me on it. Besides these three students, everyone else answered the questions using one complete sentence. This meant that students had a basic understanding of how patinas could be used to make their rings more visually appealing and emotionally expressive. I noticed that students who used more than two sentences to answer the question or combined their three answers into one paragraph went into greater detail about exploring the creative possibilities of patina. These students were not only more thoughtful about how patinas could be used on large-scale everyday objects, but how they could use patinas in creatively risky ways on their projects. The students that only wrote one sentence seemed to agree that patinas were cool regarding the statement of the question rather than pushing their own answer. In summary, I believe that about ninety percent of the students achieved the written part of the learning target. However, about a third of them took time to make their answers deep and relevant to their projects. At this time, I don't have proof of the students meeting the first part of the learning target (I can paint patina onto my cast ring) because they haven't finished their projects.

2. What changes, omissions, or additions to the lesson would you make if you were to teach again?

The only thing that I would really change would be state confidently early on that I want them to write at least two complete sentences to answer the questions. I wasn't sure if that was the right thing to do when I taught my demo because I thought that it would take too much time and it would affect students getting to work on their projects. I think that making the students write more not only benefits their literary skills, but also shows me their ability to critically think about art. Some students showed that gloriously. Others I felt could've been pushed, mainly because I knew them well enough to speculate that they could go to that depth.

3. What do you envision for the next lesson? (Continued practice, reteach content, etc.)

I would consider this demo a lesson that qualifies for this assignment, but the demo would've actually been part of the bigger lesson of the cast ring. If I were to reteach patinas,

I would most likely make the metals project (whether or not it focused on casting) center around experimenting and planning designs with patinas. I would give them more than two options to work with, and I would make it mandatory for them to use at least two colors. I would definitely make the students do the Connect-Expand-Challenge exercise and push them to do two or three sentences. The depth they bring to their responses will affect the way they plan out their designs for future projects.