Plaster Mold Sculpture

**Plaster mold casting** is a metalworking casting process similar to sand casting except the molding material is plaster of paris instead of sand. Like sand casting, plaster mold casting is an expendable mold process, however it can only be used with non-ferrous materials.

The plaster is not pure plaster of paris, but rather has additives to improve green strength, dry strength, permeability, and castability.

**STEP ONE: CHOOSE** one plaster mold to use as a base for your sculpture.

**STEP TWO: PLASTER MIXING PROCESS:** Do not mix huge amounts of plaster.

1. One-half of a 5 gallon bucket of plaster will fill a fairly large mold. Mix just slightly more than you will need.

2. Use a consistency of 70, in other words, use 70 parts of water to 100 parts of plaster by weight.

3. Sift plaster into measured water. Let slake for 2 minutes.

4. Stir, without adding lots of air bubbles, until the plaster thickens just enough to leave a trail when a finger is drawn across the surface.

5. **POUR AT ONCE.**

6. Pour the plaster through the slightly open fingers of your hand to break the flow and spread it evenly over the mold.

7. Fill the mold only to ONE INCH over the top of the object you are using.

8. Tap or bump the table lightly to dislodge air bubble in the mold. Avoid heavy vibration that might dislodge the model or collapse your mold walls.

***CLEAN UP TOOLS AND Buckets IMMEDIATELY***

**Do not use the sink. Use the wash water bucket you have ready. Clean up all spilled plaster as soon as possible. Be neat.**

**STEP THREE: AFTER POURING PLASTER:**

1. Wait until the plaster has set. It will become warm to the touch and be hard enough that it is difficult to push a fingernail into the surface.

2. After the plaster is sufficiently set, carefully remove the mold forms. Be gentle, as the plaster is still not very strong.

3. While the plaster is still fairly soft, round off the outside edges of the mold with a knife or rasp. Do not round the inside (working mold) edges of a multi-part mold. Leave no corners that might chip off later.

4. Multi-part Molds: repeat all steps for each of the remaining section of the mold, using the already cast sections as part of the forms. Seal the mold boards (sides) carefully to avoid plaster leaks. Separate parts carefully to avoid breakage.

5. After mold is complete, gently wash, with soap if necessary, to remove all mold release. Allow mold to dry a few days before using.

**MOLD RELEASE for plaster:** Use one of the following: Mold soap - the best choice. Apply two or three coats with a damp sponge and buff when dry or Vaseline. CLEAN UP ALL PLASTER TRASH.

**STEP THREE: PAINT** your mold once it has hardened with paint brushes. **CONSIDER:** Detail and line.

**STEP FOUR: REFLECT** by answering the following questions:

1. What do you think was the most successful part of your sculpture and why?
2. What do you think was the least successful part of your sculpture and why?
3. If you had to do this project again, what changes would you make to your sculpture and why?
A) Sculpture & Painting techniques used in my work and how they support my intended visual message

B) REFLECT by answering the following questions:

1. What do you think was the most successful part of your sculpture and why?

2. What do you think was the least successful part of your sculpture and why?

3. If you had to do this project again, what changes would you make to your sculpture and why?
### Plaster Mold Sculpture Evaluation

<table>
<thead>
<tr>
<th>Knowledge/Understanding</th>
<th>Level 0</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
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</thead>
<tbody>
<tr>
<td>Demonstrates understanding of the elements &amp; principles of design in the sculpture (e.g. form, balance, colour)</td>
<td>Work does not meet assignments expectations for this category. Incomplete.</td>
<td>Student demonstrates limited understanding of the elements &amp; principles of design in the sculpture. 0.25</td>
<td>Student demonstrates some understanding of the elements &amp; principles of design in the sculpture. 0.50</td>
<td>Student demonstrates considerable understanding of the elements &amp; principles of design in the sculpture. 0.75</td>
<td>Student demonstrates a high degree of understanding of the elements &amp; principles of design in the sculpture. 1</td>
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</tbody>
</table>

| Thinking/Inquiry | Concept: Plaster Mold | Work does not meet assignments expectations for this category. Incomplete. | Concept and context is slightly unclear and/or weak. Meaning or ideas conveyed are below expectations for student’s grade level. 0.50 | Concept and context is clearly evident and valid. Meaning or ideas conveyed are on par with student’s grade level. 0.75 | Concept and context is clear and strong. Meaning or ideas conveyed are above expectations for grade level. 1 |

| Communication | Explains use of painting & sculpture techniques in the Plaster Mold handout | Incomplete. 0 | Student explains use of painting & sculpture techniques in the Plaster Mold handout with some clarity. 0.50 | Student explains use of painting & sculpture techniques in the Plaster Mold handout with considerable clarity. 0.75 | Student explains use of painting & sculpture techniques in the Plaster Mold handout with a high degree of clarity. 1 |

| Reflective Questions | Incomplete. 0 | Poor, yes/no answers/limited complete 0.25 | Somewhat coherent and somewhat complete 0.50 | Clear and substantial answers. 0.75 | Superior and insightful answers. 1 |

| Application | Creative Process: Demonstration of Skill Development & following procedures including Clean Up | Incomplete. 0 | Student demonstrates limited effectiveness in demonstrating the creative process and following procedures. 5-6 | Student demonstrates considerable effectiveness in demonstrating the creative process and following procedures. 7-8 | Student demonstrates superior effectiveness in demonstrating the creative process and following procedures. 9-10 |

| Uses elements & principles of design & painting sculpture techniques to produce an effective artwork – Painted Plaster Mold | Incomplete. 0 | Student demonstrates limited use of the e & ps of design and sculpture techniques to produce an art work of limited effectiveness. | Student demonstrates some use of the e & ps of design and sculpture techniques to produce an art work of some effectiveness. 2-3 | Student demonstrates considerable use of the e & ps of design and sculpture techniques to produce an art work of considerable effectiveness. 3-4 | Student demonstrates a high degree of using the e & ps of design and sculpture techniques to produce a highly effective art work. 5 |

| Detail | Incomplete. 0 | The work is painted with little/no detail. 1 | The work is painted with some detail. 2 | The work is painted with adequate detail. 3-4 | The work is painted with substantial detail. 5 |

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A1. The Creative Process: apply the creative process to create a variety of art works, individually and/or collaboratively;  
A1.1 use a variety of strategies, individually and/or collaboratively, to generate Ideas and to develop plans for the creation of art works (e.g., in small groups, use brainstorming, research, concept webs, and/or mind maps to generate original and imaginative ideas; filter their ideas to select a suitable one to serve as the basis for their art work; use notes and/or thumbnail sketches to help them develop clear and flexible plans that show attention to detail; revise their plans on the basis of peer- and self-assessment)  
A1.2 use experimentation, reflection, and revision when producing a variety of art works in each of the following areas: drawing, sculpture, painting, printmaking, and mixed media (e.g., experiment with a variety of materials/media, techniques, and tools to find ones that are appropriate for their planned art work; reflect on their preliminary work and on feedback from their peers before revising their art work)  
A1.3 document their use of the creative process in a portfolio (e.g., include evidence of their conceptual, creative, and technical skills; include thumbnail sketches, checklists, and/or graphic organizers to show evidence of experimentation, reflection, and revision), and refer to this portfolio to reflect on how effectively they have used the creative process  
A2. The Elements and Principles of Design: apply elements and principles of design to create artworks for the purpose of self-expression and to communicate ideas, information, and/or messages;  
A2.1 use various elements and principles of design to create art works that express personal feelings and/or communicate emotions to an audience (e.g., create a mixed-media self-portrait that uses colour, line, and shape in the style of Frida Kahlo to convey their personality and elicit emotions from the audience)  
A2.2 apply elements and principles of design as well as art-making conventions to create art works that communicate ideas, information, or messages, and/or that convey a point of view on an issue (e.g., use colour, line, shape, contrast, and emphasis when creating a graffiti piece that addresses an issue in their local community; incorporate symbolism to communicate a message about an environmental issue)  
A3. Production and Presentation: produce art works, using a variety of media/materials and traditional and/or emerging technologies, tools, and techniques, and demonstrate an understanding of a variety of ways of presenting their works and the works of others.
3.1 explore and experiment with a variety of materials/media, including alternative media, and traditional and/or emerging technologies, tools, and techniques, and apply them to create art works

B1. The Critical Analysis Process: demonstrate an understanding of the critical analysis process by examining, interpreting, evaluating, and reflecting on various art works;

   B1.1 identify and describe their initial reactions to a variety of art works, and explain the reasons for their reactions (e.g., the aspects of the work and/or their personal experiences that contributed to their first impressions of its mood, subject, intent)

   B1.2 identify and describe the elements and principles of design used in their own art works and the works of others, and describe their effects (e.g., how line, colour, and shape are used to create emphasis, mood, and/or movement)

   B1.3 explore and interpret a variety of art works, both historical and contemporary, to identify and describe their purpose and style, the materials used, and the meanings the works convey

   B1.4 use a variety of strategies (e.g., peer- and self-assessment, formal critiques, feedback and reflection following public displays) to identify and reflect on the qualities of their own art works and the works of others, and evaluate the effectiveness of these works

B2. Art, Society, and Values: demonstrate an understanding of how art works reflect the societies in which they were created, and how they can affect personal values;

   B2.1 identify and describe the function of various types of art works in past and present societies

B2.2 identify and describe ways in which various art works reflect the societies in which they were created

C1. Terminology: demonstrate an understanding of, and use correct terminology when referring to, elements, principles, and other components related to visual arts;

   C1.1 use appropriate terminology related to elements and principles of design when creating and analysing art works

   C1.2 use appropriate vocabulary to describe techniques, materials, and tools when creating and presenting visual art works

   C1.3 identify and describe the stages of the creative process and the critical analysis process (e.g., how reflection relates to the other stages of the creative process)

C2. Conventions and Techniques: demonstrate an understanding of conventions and techniques used in the creation of visual art works;

   C2.1 use appropriate terminology related to elements and principles of design when creating and analysing art works

   C2.2 demonstrate an understanding of several conventions used in visual art works (e.g., exaggeration, metaphor, simile, symbols, synectics; conventions associated with heroic, narrative, naturalistic, and satirical works)

C3. Responsible Practices: demonstrate an understanding of responsible practices in visual arts.

   C3.1 use appropriate terminology related to elements and principles of design when creating and analysing art works

   C3.2 demonstrate an understanding of safe and conscientious practices associated with the use of materials, tools, and technologies in visual arts, and apply these practices when creating and/or presenting art works (e.g., use appropriate precautions when dealing with hazardous materials; adopt protective measures when using sharp tools; keep their work space clean and free of physical and other hazards; demonstrate respect for classroom facilities, tools, equipment, and technological devices)