



Make your own Paper Mold

Grade Level: Art and Social Studies grades 2-8

Time: 45 minutes

Objective: Students will make Western paper molds using picture frames so that students will understand how such tools were historically important for making paper.

I Can Statements: I can: (1) use materials to make paper mold and achieve expected results; (3) use accurate vocabulary; (3) identify sequential procedures for making paper mold. (4) understand the history of paper molds and their use and evolution

Georgia Standards of Excellence:

Social Studies (with use of History of Papermaking PDF)

2nd Grade: SS2E3; 3rd Grade: SS3E2; 4th Grade: SS4E1, SS4H1.a, SS4H5.e; 5th Grade: SS5E2.a, SS5E1, SS5H2.b; 7th Grade: SS6E8.a-c; 7th Grade: SS7E7.a, SS7E9, SS7EH.a, SS7E4.a, SS8H4.c, SS8H1.b; L6.8RHSS 3,4,5

Art

2nd Grade: VA2.CR.4.c, VA2.CR.5, VA.RE.1.b, VA2.CN.1.a-b, VA2.CN.2, VA2.CN.3

3rd Grade: VA3.CR.4.c, VA4.CR.5, VA3.RE.1.a, VA3.CN.1.a-b, VA3.CN.3

4th Grade: VA4.CR.4.c, VA4.CR.5, VA4.RE.1.a, VA4.CN.1.a-c, VA.CN.3

5th Grade: VA5.CR.2.d, VA5.CR.4.c, VA5.CR.5, VA5.RE.1.a, VA5.CN.1.a-d, VA5.CN.3

6th Grade: VA6.CR.2.b, VA6.CR.3.a-c, VA6.CR.5.b, VA6.RE.1a, VA6.CN.1a-c, VA6.CN.3.c

7th Grade: VA7.CR.1.b, VA7.CR.3.a-c, VA7.CR.5.b, VA7.RE.1a, VA7.CN.1a-c, VA7.CN.3.c

8th Grade: VA8.CR.1.b, VA8.CR.3.a-c, VA8.CR.5.b, VA8.RE.1a, VA8.CN.1a-c, VA8.CN.3.c

Background:

Paper molds are made up of a frame and a screen. In Asia, this screen is often made of bamboo sewn together with horsehair. Western molds have a screen made of wire or brass. The screen allows water to flow through, leaving behind fibers that form a sheet of paper. Once the paper is formed, it is removed, or couched (pronounced *kooched*) from the mold.

Nathan Sellers of Pennsylvania was a famous papermold maker. He joined the American Revolution in 1776, but was soon discharged by special order of the Continental Congress because they needed to use his skills as a mold maker. They sent him home to make paper molds for making paper to be used for gun powder wrappers and written orders.

**** Refer to the *History of Papermaking* PDF for additional information regarding the history of papermaking and paper molds.

Vocabulary:

couching – Pronounced “koo-ching.” Method of transferring a newly formed sheet of paper from a papermaking screen onto a felt or other couching sheet. In order to create a multi-layered sheet, newly formed sheets of paper are couched onto one another.

deckle — A wooden frame that sits on top of the mold, which acts as a rim and determines the sheet of paper’s dimensions and thickness. A deckle is the removable top part of a hand mold.

deckle edges – The rough edges on handmade paper, from where the deckle and mold meet when pulling a sheet of paper. Although the deckle edge was originally considered an imperfection, it has become popular with the renewal of the handcraft tradition.

hand mold – The basic tool in hand papermaking, on which a sheet of paper is formed. It consists of a frame with a mesh screen stretched across. Used with the deckle to form the sheet of wet pulp. When dipped and raised from a vat it creates a sieve-like action catching the fiber on the screen while the water drains.

Materials: 2 wooden picture frames of the same size, screen or net (a tightly woven window screen, or any material that will act as a sieve, such as cheese cloth), heavy-duty staple gun

Preparations: Gather picture frames of matching size; enough that each student has two frames of matching size. Prepare screens for students: screen should be about 1” wider than the opening of the frame.

Essential Questions: (1) How is a paper mold used to make paper? (2) What is the difference between Asian and Western paper molds? (2) What materials can be used to make a paper mold? (4) How is paper removed from the paper mold? (5) Why is paper removed from the paper mold when still wet in Western papermaking?

Introduction: Introduce students to a brief history of papermaking and then demonstrate how to stretch netting over frame and secure it with staples.

The following can be used as an instructional guide:

1. A paper mold consists of a frame with a screen. In Asian style papermaking, this screen is often made of bamboo sewn together with horsehair. Western, or European, molds have a screen made of wire or brass. A deckle frame is also placed on top of the mold, forming edges. Some of the Asian papermaking styles do not use a deckle. The screen allows water to flow through, leaving behind fibers that form a sheet of paper. The western style of mold and deckle is more commonly used in hand papermaking in North America. What are differences between Asian and Western style paper molds? What materials can be used to make a paper mold?

Procedure:

1. Students will make sure they have two frames of the same size. Students will remove all parts of a picture frame (glass, hangers, etc), leaving just the frame.
2. Working in pairs, students will stretch the netting over one of the wooden picture frames and staple it along the sides. One student will stretch the netting while the other staples.
3. Students will use the second frame as a deckle.
4. Wrap up questions: How is a paper mold used to make paper? What is the difference between Asian and Western paper molds? What materials can be used to make a paper mold?
5. Students will articulate reasons for paper molds and the different styles of molds. Students will identify universal themes related to papermaking and paper molds from diverse cultures, both past and present. Students will evaluate their own paper molds through verbal discussion with other students discussing topics such as craftsmanship and cultural relevance.

TIP: Use an indoor/outdoor sealer on the paper mold to protect the wood from warping.
This way, you can use the mold for many years.