

How to Make a Papermaking Mold and Deckle

The project not only taught students the importance of measuring accurately, but also the importance of recycling. The students were surprised about how easy it was to make their paper with the mold and deckle.

Curriculum/State Standard

2.1, 2.2, 2.3, 2.7, 2.8, 2.9, 2.10

Overview

Students make their own mold and deckle. The measurements of the final deckle described here will produce an 8 1/2" x 11" piece of paper.

Objectives

The student will design and produce a wooden mold and deckle with a mesh screen. The student will learn how to make a piece of recycled paper.

Materials

3/4" x 3/4" plywood boards at least 84 inches long; ordinary window screen, nylon mesh, or silk screen; hand saw and miter box; rust proof staples; brass screws; wood glue; polyurethane; 4 corner brackets; 4 small clamps

Readiness Activity

Discussion: What happens to all the "stuff" we throw away? Do we have other uses for it? What do they think they can recycle from school? Materials for making the paper are collected.

Strategies/Activities

1. Cut the boards into four 10" lengths and four 11" lengths in the miter box, creating miter edges that can be fitted together.
2. For the deckle: create a frame with these boards. Use wood glue to secure the edges.
3. Clamp each corner to hold the frame together.
4. When the glue is dry, screw corner brackets on each corner of the frame.
5. Repeat the process above to make the deckle.
6. When the glue has dried on both the mold and deckle, coat with several layers of polyurethane, getting dry between coats. Let dry for several days.

Continued on the back...

5

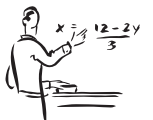
GRADE LEVEL



ARTS



LANGUAGE



MATH

Misc

MISCELLANEOUS



SCIENCE



HISTORY



SOCIAL STUDIES

1

WEEK

\$315

TOTAL BUDGET

“Papermaking Mold” project continued...

7. Cut a piece of screen (nylon mesh or silk screen) about one inch longer on all sides than the mold.
8. Fold the edge of the screen under half an inch and staple it to the outside edge of one side of the frame approximately in the center of the length.
9. Repeat this process on the opposite side of the frame in approximately the same position of your first staple.
10. Staple the rest of the screen to the frame by stapling the screen on all sides. Work alternatively on all four sides, so that the screen is stretched evenly.

Note: unlike the mold, which is stretched with screen, the deckle is left open - it will simply be a frame.

Tips: Your choice of screen for your mold will make a difference to the texture of your paper - a finer screen will create a smoother surface and vice versa.

Culminating Activity

The students will use the molds and deckles they made to make recycled paper.

Evaluation

Did the students produce a product useful for recycling? What other ways can they recycle? We also engage in an indepth discussion of landfills, environmental problems.