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The Art Of Papermaking

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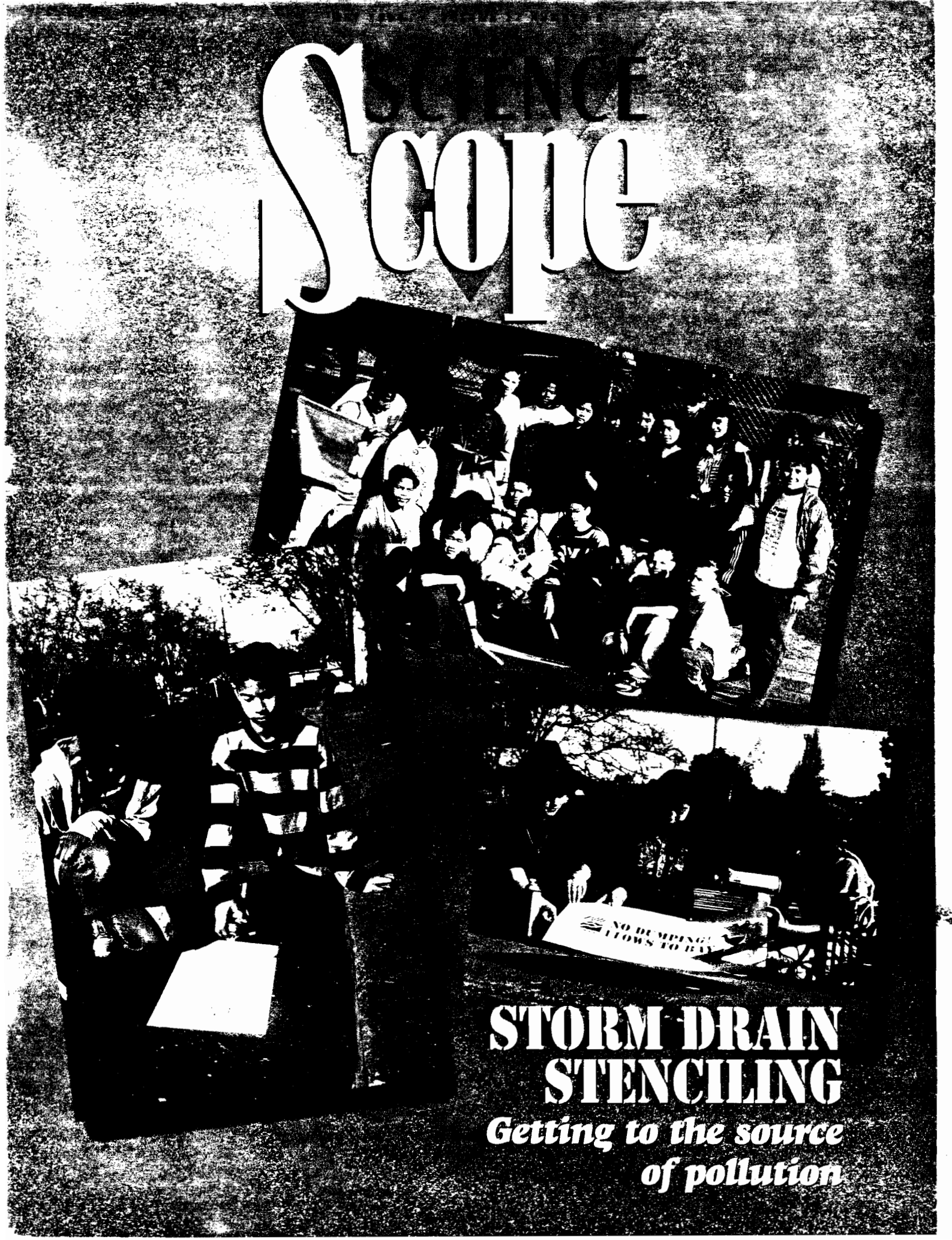


STORM DRAIN STENCILING

Getting to the source of pollution

Potpourri

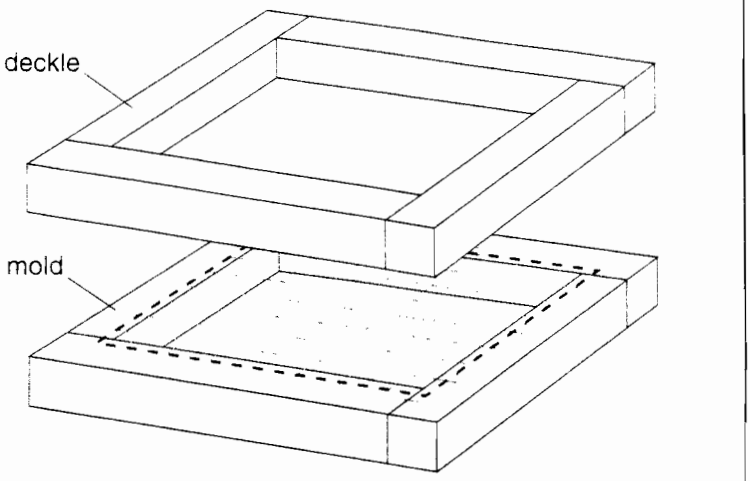
The art of papermaking

Once, all paper was made by hand. Paper was difficult to come by and therefore was valuable and cherished by people who could obtain it. Today, most paper is machine made from pulp, the soft inner material of trees. However, papermaking as an art form has not been lost, and can be part of an exciting hands-on classroom activity for a science, language arts, or social studies class.

Paper can easily be made by assembling and using a few simple materials. You need to make a frame upon which you will make a single sheet of paper. This frame is called a mold and deckle. Using one-by-twos, assemble two frames that are eight-inch squares. Cover one side of the first frame with window screening. Attach the screen to the wood with a stapler. This frame will be the mold. The second frame, not covered by screen, will be the deckle. Figure 1 shows how the finished mold and deckle should look.

Next, a pulp material is needed. Old newspapers, paper towels, and tissues work well. Shred the old paper into very small pieces. Add 60–100mL of paper (about 1/3–1/2 cup) to 235mL of water (about 1 cup). (Lint from the dryer also makes a nice pulp material.) The water will soften the paper and break it down into the fibers of which it was originally composed. Letting the paper sit in the water for a few minutes will allow the paper to break up more easily. Blend this mixture at high speed in a blender for a few minutes or until the mixture looks very mushy, like oatmeal. (If you do not have a blender, you can shake the water and shredded paper in a jar with a tight lid.) Next, pour this pulpy mixture into a tub or sink that is larger than the mold and deckle. Add more water to the basin. The paper mush or pulp should float on the water's surface.

FIGURE 1.



The next step increases the quality and usefulness of the final product. Most handmade paper is extremely water absorbent. If you write on it, the ink will smear or run. Controlling the paper's liquid-absorbing capacity is easily accomplished by adding sizing to the mixture in the basin. The sizing seals the paper's pores. A few drops of white glue, two tablespoons of gelatin, or two tablespoons of cornstarch should work equally well.

Hold the mold screen-side-up and place the deckle on top of the mold. The screen now sits between the two wood frames. Place the mold and deckle in the tub or sink and position it under the floating pulp. Then lift the frame straight up, taking the pulp with it. This wet pulp on the screen, which is almost a finished sheet of paper, is called a waterleaf. Press on the waterleaf with your hands to remove the excess water.

The next step, called couching, is the removal of the sheet from the screen. Place a towel or a piece of felt over the sheet of paper. Turn the screen over and tap it until the paper disengages from the screen and is transfered onto the cloth or felt to dry.

These paper sheets can be individualized in a variety of ways. Students can add letters cut from magazines or newspapers to the floating pulp. They can also press the letters into a sheet of finished but still wet paper. Leaves, flowers, and other natural fibers such as hemp, thistle, corn stalks, fruit rinds, or vegetable peels can add a special texture and design to handmade paper. The paper can be tinted by adding pieces of colored construction paper to the pulp during the blender stage. Students can also dye the paper by adding food coloring or acrylic paint to the pulp.

With today's focus on saving our natural resources, papermaking shows students how we can recycle old paper into new, fresh, clean sheets of paper that are useful as well as decorative.

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