

Plantable Pulp Cards (art + science)

This is a great project for teaching recycling and renewal. Using a plastic stencil and screen, students make a shaped piece of handmade paper from cast-off scraps. Flower and vegetable seeds are added to the pulp. When dry, the rough-textured paper can be decorated with paint or drawing materials and glued to the front of a card. When planting season arrives, place the shape in the soil to make a beautiful garden.



Grade Levels K-8

Note: Instructions and materials are based on a class of 25 students. Adjust as needed.

Preparation

1. Collect paper to recycle. Unprinted or paper printed with soy inks work best. Most paper grocery bags, egg cartons, newspapers and phonebooks are printed using eco-friendly inks. You can also use napkins and paper towels ... even dryer lint! Use small pieces of “bleeding” tissue paper to add color.
2. Select a stencil and cut the plastic canvas to the same size. Tape it in place with duct tape around the outer edges, or glue it with waterproof glue, keeping the opening free, see (A).

NOTE: If stencils are warped, iron them with a household iron on a low setting until flat.



(A)

Materials

Large Stencils, one per student recommend:

Roylco® Nature Stencils, set of 10 (61719-1001)

Roylco® Child's First Stencil Set, set of 10 (61719-1003)

Blender or food processor

Paper to recycle (biodegradable)

Plastic Stitchery Canvas, (63103-1044); need one per student

Medium-size Mixing Bowl

Mesh Kitchen Strainer

Paper Towels

All-Purpose Chipboard, double thick 22" x 28" (13115-2232); cut five sheets to 8-1/2" x 11" pieces, need one piece per student

Spectra® Art Tissue, assorted color package of 20 (11306-1009)

Blick® Square Pastels, 12-color set (20016-1009); share one among four students



Elmer's® School Glue, 4-oz bottle (23810-1204); share one among four students

Options for Making Cards:

Blick® Student Watercolor Paper, 22" x 30" (10028-1022); cut to 7" x 14", need one per student

Crayola® Educational Watercolors (00309-0009); share set between two students

Blick® Economy Camel Round Brushes, set of 120 (06220-1120); need one per student

Blick® 140-lb Premium Cardstock, 18" x 24", assorted colors (11408-); cut to 6" x 12" pieces, need one per student

Process

1. Tear paper into small pieces. Fill the blender 3/4 full with paper scraps and two cups of water. Blend for one minute on a low speed to make the pulp.
2. Pour the pulp into a strainer over a mixing bowl. Discard the excess water and place the wet pulp into the mixing bowl. Add flower or vegetable seeds and stir to mix. Biodegradable organic materials can also be added, such as flower petals, bark chips, leaves or hemp strands.
3. Set the stencil on a folded kitchen towel, screen side down. With fingers, press the wet pulp onto the screen, filling the entire shape. Press frequently with paper towels or a sponge to flatten the pulp and remove excess water. Fill evenly with layers of pulp, using as much as possible (the thicker the pulp, the stronger the finished piece will be), and continue to blot excess water.
4. Pull off the duct tape and gently lift the stencil away from the pulp. Dry the shape for 24–48 hours. For best results, dry the screen on a drying rack, where air can reach both sides. If a drying rack is not available, place a few paper towels on a piece of chipboard and set the screen on top. Turn the shape over several times while drying. To decrease drying time, set it in front of a fan on a low speed or place it in a sunny location. Do not use a hair dryer, as heat will damage the seeds.
5. Remove the shape from the screen. The screen and stencil may be used again.
6. When dry, embellish the shape with chalk pastels. Use fingers to blend the colors into the rough texture. Do not damage the surface with sharp pencils or heavy pressure. Do not rewet the surface with paint and do not seal the paper.
7. Fold watercolor paper to make a card and paint the front with a garden scene as the background. Allow it to dry, then mount the “plantable” pulp shape using a few drops of washable glue. Colorful Blick 140-lb cardstock (11408-) can also be used as an alternative to painting.

Planting Instructions:

1. Tear the pulp shape into small pieces and plant it directly in the ground or a pot. Keep soil moist to help the seeds germinate.
To start the seeds indoors, dampen the paper with a water sprayer and place it inside a clear plastic bag. Leave the bag open, and check frequently to make sure the paper stays moist. When the seeds have sprouted, they can be transplanted into the ground or a pot.



National Standards for Visual Arts Education

Content Standard #1 Understanding and applying media, techniques and processes

K-4 Students use art materials and tools in a safe and responsible manner

5-8 Students select media, techniques and processes; analyze what makes them effective or not effective in communicating ideas; and reflect upon the effectiveness of their choices

Content Standard #6 — Making connections between visual arts and other disciplines

K-4 Students identify connections between the visual arts and other disciplines in the curriculum

5-8 Students describe ways in which the principles and subject matter of other disciplines taught in the school are interrelated with the visual art