

Art

through the ages:
Printmaking with children

Most children's art is a product of one—a single creation using paint, collage materials, or sculpting clay. Printmaking, however, allows children to make multiple products using one tool or multiple copies from one design.

Introduce children to printmaking using the activities below. The goal, as in all children's art, is to allow children to explore the materials. Avoid focusing on the finished prints. Talk about the process and their efforts.

Help children learn the concept of printmaking: transferring an image from one surface to another. Encourage children to experiment with different tools and to identify ordinary objects they can make prints from. Help children understand that printmaking is a way to express themselves and be creative.

What is printmaking?

In fine art printmaking, the artist chooses a surface to be a printing plate—foam, metal, wood, cardboard, stone, or linoleum, for example. The artist prepares the plate by cutting, etching, carving, or drawing a design into the plate. The artist then applies ink or paint to the plate, presses paper onto the plate (by hand or a printing press), and pulls the paper with its transferred image from the plate.

The artist can create multiple impressions by re-inking the plate and printing new pieces of paper in the same way. In fine art printing, each impression is numbered and signed by the artist. There are five principal printmaking techniques: relief, intaglio, lithography, screen printing, and monotypes. Each technique produces a distinct appearance; most require professional printing materials and machines.

Relief printing. In this technique, the artist sketches a design on a wood or linoleum block and then cuts away pieces from the surface. This leaves a raised design that is printed. The artist applies ink or paint to the surface and transfers the image to paper. The resulting print is a mirror image of the original plate. Since there is no ink on the cut-away areas or background, the design is surrounded by white space. Relief prints typically are bold, with strong color contrast.

Chinese artists have used woodcutting techniques since the ninth century, often in textiles. Look for relief prints by contemporary Asian artists and by Holbein the Younger, Katsukawa Shunsho, Katsushika Hokusai, William Blake, Vincent Van Gogh, and James Whistler.

Intaglio printing. Intaglio (pronounced in TAL yo) comes from an Italian word meaning to incise or cut. In intaglio printing, the



artist uses acid to cut into a metal plate. The artist covers the plate with ink and then cleans it so that the ink remains only in the cut grooves. The artist presses dampened paper on the plate to transfer the design.

Engraving is an intaglio process commonly seen on fancy wedding invitations. Francisco Goya, Pablo Picasso, Rembrandt, and Albrecht Durer produced intaglio prints.

Lithography. This technique, invented in 1798, uses the principle that oil and water don't mix. The artist draws a design on a flat surface with a greasy material such as a crayon or tusche, an oil-based paint. The artist dampens the surface of the plate with water, which is repelled by the grease. When the artist applies printer's ink to the plate, the ink sticks to

the greasy design and not to the unmarked areas of the plate.

Pierre Bonnard, Henri de Toulouse-Lautrec, Edouard Manet, and Edvard Munch took advantage of the technique to make a great number of prints and posters from one design.

Screen printing. Screen printing or serigraphy uses stencils of paper, fabric, plastic, or plant leaves with designs cut, perforated, or punched in the surface. The artist attaches the design to a piece of mesh that is stretched taut. The artist uses a squeegee to force paint or ink through the mesh onto paper or fabric. The uncovered areas of the screen allow the paint to transfer to the paper; the areas covered by the design do not.

Screen printing became famous in the 1960s when Andy Warhol produced his Pop art icons like the Campbell's soup cans. Other artists worth studying are Peter Max, Ben Shahn, and Robert Guathmey.

Monotypes. Monotypes or monoprints are designs that are transferred in a single impression. The artist creates a design on a surface, covers the design with a piece of paper, and transfers the design in a mirror image.

Mary Cassatt, known for her images of mothers and children, often created monotypes.

The following activities are variations on each of the printmaking techniques.

Printmaking with toddlers

Toddlers and paint guarantee a messy but positive sensory experience. Prepare for each of these monoprint activities by covering the work surface with plastic or several layers of newspaper. Collect plastic paint trays or saucers. A wide base and low sides will help keep the tray from tipping over. Make sure you have a drying rack or shelf ready for drippy paintings.

Toddlers will want to investigate the paint and the process, developing new skills as they experiment. For example, most toddlers will rub and smear with the printing tool—like they do with a paintbrush—before they discover that a single-motion placement makes a better print.

Car track prints

Here's what you need:

- large sheets of paper
- small, matchbox cars with wheels
- plastic paint trays
- masking tape
- liquid tempera

1. Use a loop of masking tape on the bottom of the paint tray to hold it in place on the table.
2. Pour about one tablespoon of paint into a paint tray.
3. Provide large sheets of plain paper.
4. Show how to dip the car wheels into the paint and "drive" the car on paper, making tracks.

Variations: Provide a variety of wheeled toys and paint colors.

Printmaking tools

Materials to use for printmaking are almost endless. Use this list to inspire printmaking art in your classroom.

- combs
- mesh bath puffs
- clothespins
- berry baskets
- cookie cutters
- nylon stockings
- feathers
- sponges
- kitchen tools—potato mashers, forks, and spatulas
- dominoes
- bottle caps
- leaves
- blocks
- hair rollers
- pine cones
- body parts—hands, feet, and elbows
- sea shells

Object prints

Here's what you need:

- liquid tempera
- paper towels
- plastic paint trays
- large sheets of paper
- masking tape
- large printing objects like empty thread spools, clothespins, plastic cookie cutters, or sponges

1. Use a loop of masking tape on the bottom of the paint tray to hold it in place on the table.
2. Choose a few, large printing tools and place them on the table near the paint trays.
3. Dampen a paper towel with water. Fold the towel into quarters.
4. Place a folded towel in the paint tray. Pour about one tablespoon of paint onto the towel to make a stamp pad. Prepare as many paint trays as there are children participating in the activity.
5. Let the children press a tool onto the paint pad and transfer the design to paper.

Bubble wrap prints

Here's what you need:

- large sheets of paper
- plastic paint trays
- large paintbrushes
- masking tape
- liquid tempera
- sheets of bubble packing wrap

1. Use a loop of masking tape on the bottom of the paint tray to hold it in place on the table.
2. Tape squares of bubble wrap—raised side up—to the table near the paint trays.

3. Pour about one tablespoon of paint into each of several trays—a different color in each.

4. Invite children to paint the bubbles.

Variation: Allow the toddlers to investigate the bubble wrap thoroughly—by popping the bubbles and by painting them. Then show how their painted designs can be transferred to paper. After the bubble wrap is covered with paint, place a clean sheet of paper over the wrap and press lightly. Lift the sheet and share the multi-colored print. Remember, the bubble wrap can be reused: Rinse clean and hang to dry.

Preschoolers

As an introduction, share examples of art prints on postcards from art museums or pictures in magazines and library books. Encourage children to study patterns and shapes, symmetry, texture, and color.

Introduce two basic printmaking techniques. In the first the artist dips an object into paint or ink and transfers the design of the object to paper or fabric. This is the simple technique used in the car track print activity above as well as printmaking with clay blocks, sponges, and rubber stamps.

In the second technique, the artist creates a printing block from foam, wood, soap, or cardboard. The artist spreads ink or paint over the design with a brayer or roller to create two surfaces, one with paint (the positive image) and one without (the negative image). The artist transfers the design to paper or fabric in a separate step, allowing the artist to make multiple copies of the design.

Folded symmetry

Here's what you need:

- large sheets of paper
- liquid tempera in squeeze bottles

1. Fold a sheet of paper in half to crease.
2. Open the paper and dribble paint in any design onto one half of the paper. Invite children to use several paint colors in their designs.
3. Refold the paper along the crease.
4. Gently smooth the paper with the hand.
5. Open the paper to reveal a symmetrical, reverse image of the original design.

Variation: Vary paper color and texture as well as paint color.

Tool prints

Here's what you need:

- large sheets of paper
- household tools like a new plunger, potato masher, corks, bottle caps, and wood scraps
- sponges
- plastic paint trays
- liquid tempera

1. Make a printing pad by placing a damp sponge on a paint tray.
2. Pour a couple of tablespoons of paint onto the sponge. The flexibility of the sponge allows the tools to pick up the paint efficiently.
3. Press a tool into the paint and transfer the design onto paper.
4. Create pictures using a collection of household tools.
5. After the prints dry, encourage children to guess which tools created each design feature.

Clay prints

Investigate negative (white spaces) and positive (colored spaces) images with clay prints.

Here's what you need:

- balls of modeling clay
- cuticle stick or sharpened wooden dowel
- craft sticks
- printing paper
- liquid tempera
- sponges
- plastic paint trays

1. Tear off a ping-pong ball sized lump of clay. Hammer one area against a table to form a smooth, flat surface.
2. Use a craft or cuticle stick to carve a design into the flat surface.
3. Pour a couple of tablespoons of paint onto the sponge.
4. Press the clay into the paint and transfer the design onto paper.
5. Add colors to the design by rinsing the clay and choosing a new paint color.

Variation: Press small objects like keys, buttons, and pebbles into the clay to make an impression. The impression design will produce a negative space.

Sponge stamps

Here's what you need:

- clean, dry household sponges
- permanent markers
- scissors
- heavy cardboard or mat board
- craft knife (adult use only)
- white glue
- printing paper
- liquid tempera
- sponges
- plastic paint trays

1. Prepare for this activity by using a craft knife to cut 3-inch squares of mat board.

2. Invite children to draw simple shapes on the dry sponges with markers.
3. Cut out the shapes with scissors.
4. Glue the shape to a mat board base. Dry thoroughly.
5. Make a printing pad by placing a damp sponge into a paint tray.
6. Pour a couple of tablespoons of paint onto the sponge.
7. Invite children to dip their sponge stamps into the paint and transfer the design to printing paper.

School-age children

After children are comfortable with basic printmaking activities, try wooden block prints. Block printing activities require a few specialized materials including water-based printing ink and a roller or brayer for spreading the ink smoothly and evenly. Use a smooth metal or plastic tray as an inking slab. Place the slab on a stack of newspapers to minimize mess.

Introduce more sophisticated printmaking with a review of tool use and safety. Cuticle sticks, plastic knives, and vegetable peelers will allow children to make satisfying carvings safely.

Wood blocks

Here's what you need:

- blocks of wood
- white glue
- found materials like feathers, washers, paper clips, heavy string, scraps of textured fabric, pipe cleaners, or toothpicks
- glue brush or sponge
- printing paper
- water-based printing ink
- brayer or roller for ink
- clean brayer
- plastic ink slabs

1. Invite children to choose an object to print and a block of wood approximately the same size.
2. Spread glue on the wood block to cover the entire surface.
3. Place the object or objects on the glue in any desired arrangement.
4. Allow the glue to dry in place overnight.
5. Pour a dot of ink onto the inking slab.
6. Roll the brayer through the ink on the slab, spreading the ink evenly and soaking the roller.
7. Turn the wood block design side up and roll the ink over the raised surface.
8. Place a piece of paper on top of the design.
9. Use the clean brayer to smooth the paper in the ink.
10. Carefully lift the paper to reveal a print.

Cardboard blocks

Here's what you need:

- sheets of corrugated cardboard
- white glue
- glue brush or sponge
- scissors
- heavy cardboard or mat board
- printing paper
- water-based printing ink
- brayer or roller for ink
- clean brayer
- plastic ink slabs

1. Draw designs and shapes on corrugated cardboard. Cut out the design.
2. Glue the design onto heavy cardboard. Let dry thoroughly.
3. Pour a dot of ink onto the inking slab.
4. Roll the brayer through the ink on the slab, spreading the ink evenly and soaking the roller.



5. Turn the cardboard block design side up and roll the ink over the raised surface.
6. Place a piece of paper on top of the design.
7. Use the clean brayer to smooth the paper in the ink.
8. Carefully lift the paper to reveal a print.

Variations: Use more than one ink color in the design.

Make other raised block designs. Draw a design on mat board. Trace the design with heavy cord glued in place or a heavy bead of glue left to dry hard. Print the design as described above.

First screen prints

Here's what you need:

- large sheets of paper
- plastic paint trays
- large, stiff paintbrushes
- masking tape
- liquid tempera
- scraps of loose-weave burlap

1. Pour about one tablespoon of paint into a paint tray.
2. Tape sheets of plain paper onto the table. Place and tape a scrap of burlap to the paper.
3. Show how to dab the paint onto the burlap and then how to carefully lift the burlap revealing a textured print.

Variations: Reproduce this activity using other open-area materials like fiberglass screen wire, paper doilies, lace, perforated cardboard, and stencil templates.

Floral foam prints

Here's what you need:

- blocks of floral foam
- cuticle sticks or short, sharpened dowels
- knife-shaped vegetable peeler
- masking tape
- scrap paper
- pencils
- small pieces of dry sponge
- paint trays
- liquid tempera
- scissors
- paper for printing

1. Wrap tape around the blade of the vegetable peeler, leaving the blunt end exposed.
2. Cut scrap paper to the size of the floral foam.
3. Invite children to draw a simple design on the scrap paper.
4. Show how to hold the paper on the foam and trace the design using the cuticle stick or dowel. Make an impression in the foam.
5. Use the vegetable peeler to carve around the design, scraping away excess foam. Insist that the tool be pushed away from, rather than toward, the body.
6. Prepare for printing by pouring paint into paint trays. Have a supply of printing paper nearby.
7. Dip a dry sponge into the paint and dab onto the foam design.
8. Place the design, paint side up on a flat surface.
9. Place a piece of printing paper on top of the design and gently rub with fingers.
10. Lift the paper carefully, exposing the printed design.

Variation: Use the same process to make soap bar prints. The soap is harder to carve than the foam, so reinforce safety procedures. Note that it may be necessary to add a drop of dishwashing detergent to the tempera to help it adhere to the soap stamp.

Polystyrene blocks

This activity requires careful adult supervision and a well-ventilated work space—outdoors is best.

Here's what you need:

- polystyrene sheets
- pencils
- fingernail polish remover
- fine-tipped paintbrushes
- brayer
- clean brayer or roller
- inking slab
- water-based ink
- printing paper

1. Invite children to draw designs on polystyrene sheets with pencils, indenting the plastic slightly.
2. Trace over the design with a fine-tipped paintbrush dipped in nail polish remover. Note how the polish remover dissolves the polystyrene.
3. Pour a dot of ink onto the inking slab.
4. Roll the brayer through the ink on the slab, spreading the ink evenly and soaking the roller.
5. Turn the polystyrene block design side up and roll the ink over the raised surface.
6. Place a piece of paper on top of the design.
7. Use the clean brayer to smooth the paper in the ink.
8. Carefully lift the paper to reveal the print.

Variation: Invite the children to discover that they can make more than one print from a single inking. Try overprinting with a second, darker color.

Silk screens

Silk screening is a printing technique in which paint is pushed through a fabric screen to make a crisp design. Most decorated T-shirts are silk screened.

Here's what you need:

- embroidery hoop
- heavy cardboard
- masking tape
- liquid tempera
- scrap paper
- pencil
- scissors
- printing paper
- squares of lightweight fabric (like cotton organdy) to fit hoop

1. Place fabric in embroidery hoop. Pull the edges taut—the fabric must be tight and wrinkle-free.
2. Make a squeegee by cutting the heavy cardboard into a 4-inch by 2-inch strip.
3. Cover one edge of the cardboard with masking tape. This keeps the cardboard from absorbing the paint.
4. Draw and cut out a simple design—like a snowflake—from the scrap paper. Make sure this stencil is smaller than the embroidery hoop.
5. Place the stencil on the printing paper.
6. Put the fabric in the embroidery hoop flat on top of the stencil, pressing down firmly.
7. Pour about 1 tablespoon of tempera into the hoop.
8. Spread the paint by pulling the squeegee across the paint several times.
9. The paint holds the stencil to the fabric in the embroidery hoop; a negative of the stencil is left on the printing paper. Lift the hoop (with the stencil) and repeat to make another print.
10. Discard the stencil, wash and dry the fabric, and repeat the activity.

Printing fabric

A table runner, class wall hanging, or curtains could permanently document a study of printing techniques. Modify these instructions to the skills and supervision needs of the children in the group. For example, if you can provide supervision for a group of three or four children, making stamps with craft foam and craft knives may be appropriate. If the group is larger and you can't give the work your full attention, pre-made stamps may be more suitable.

Here's what you need:

- sheets of scrap paper
- scissors
- pencil
- glue
- heavy cardboard or mat board
- scrap mat board
- heavy muslin cloth, sized to your project
- liquid fabric paint
- paint brayers
- clean brayers or rollers
- craft foam sheets
- fine-tipped markers
- craft knives
- inking slabs

1. Invite children to draw folded paper designs. Fold a sheet of paper in fourths, draw and cut out shapes through all four layers, open the paper to see symmetrical designs.
2. Prepare rectangles of mat board to fit the sizes of the designs.
3. Show children how to trace the design onto a sheet of craft foam.
4. Place the foam on a scrap piece of mat board. Cut out the design with a craft knife—always working away from the body.

5. Spread glue on one side of the foam and center the design on a prepared mat board backing. Allow the glue to dry thoroughly.
6. Determine the placement of the designs on the fabric. For example, a table runner could have designs printed up the center; curtains might look best with a stamped border.
7. Prepare inking slabs with one or more colors of liquid fabric paint. Spread the paint with the brayer.
8. Ink the working side of the foam stamp and transfer the design to the fabric.
9. Repeat with other stamps and paint colors, aligning the designs appropriately. If the paint gets too sticky to work with, wipe it all off the stamp with a dampened cloth and start again.
10. Allow the paint to dry thoroughly. Follow the directions on the paint bottle for setting the color—pressing with a hot iron or spinning in a clothes dryer. Heat will make the design permanent.

Resources

- Althours, Rosemary; M. Johnson; and S. Mitchell. 2003. *The Colors of Learning: Integrating the Visual Arts into the Early Childhood Curriculum*. New York: Teachers College Press.
- Lasky, Lila and Rose Mukerji. 1980. *Art: Basic for Young Children*. Washington, D.C.: National Association for the Education of Young Children.
- Schirmacher, Robert. 1988. *Art and Creative Development for Young Children*. Albany, N.Y.: Delmar.