Amaco Lesson #2: A Multi-Color Printing Experience for High School Students.

American Art Clay Co., Inc. Indianapolis, IN.

For related lessons, see ED 390 750-754.

American Art Clay Co., Inc., 4717 W. 16th St., Indianapolis, IN 46222 (color lesson plans, free).

Guides - Classroom Use - Teaching Guides (For Teacher) (052)

Aesthetics; *Art Activities; *Art Education; Art History; Creative Expression; Graphic Arts; High Schools; High School Students; *Printmaking

This lesson in multi-color printing utilizes a simple, commercially available printmaking technique. The lesson incorporates art history, aesthetics, criticism, and personal expression in reinterpreting the technique of a famous artist or artistic style. The plan includes lesson goals and objectives; background preparation; a glossary of terms; a list of supplies; optional supplies; needed equipment; and instructions for lesson implementation. Additional suggestions and follow-up ideas are given for lesson extension. (MM)
Lesson #2
A Multi-Color Printing Experience for High School Students

Multi-color lithography can now be taught on a high school level without special presses and expensive, heavy stones or metal plates and unsafe chemicals. The complicated stone lithographic process has been simplified with Litho Sketch®, a system of paper plate lithography that is safe to use and requires no special equipment. This exciting lesson in multi-color printing combines the important elements of art history and appreciation with a challenging hands-on experience that is appropriate for beginning as well as advanced high school art students. The high level of interest and enthusiasm generated will be evident in the students' work and first-time results will be impressive. Paper plate lithography allows art students to explore an important art technique successfully within the limits of a school setting.
Lesson Goals and Objectives:

1. Students will create multi-color lithographic posters, reinterpreting the technique of a famous artist or artistic style.

2. The lesson will also incorporate art history, aesthetics, criticism, and personal expression.

3. The lesson will additionally focus on the elements of design and composition, incorporating many techniques previously taught.

Background and Preparation:

1. The teacher should present a historical overview of printmaking in general and lithography in particular. Explain to students that lithography is an art form that was first discovered in the late 1700's when it was found that stone tablets treated with special chemicals could transfer images to paper. The art community, as well as the printing trade, saw the potential for this fast, economic type of chemical printing. For the next hundred years, lithography continued to be developed and refined, leading in the late 19th century to the exciting, colorful posters of Toulouse Lautrec. Paper plate lithography was first developed in the late 1930's, and through advanced technology, has progressed to the quality available today.

2. If possible, the teacher should take students to a local museum to see examples of lithographs and prints by famous artists. If such a trip is not possible, show students slides and reproductions, focusing on the number of great artists who have worked in this medium.

3. Discuss with students how artists have expressed themselves and their lives through their art. Use prints by Edvard Munch and Toulouse Lautrec (or others, if you prefer) to help students understand how the artists expressed their very difficult lives in their art and to show students that, although both artists worked in the same medium, the work they created was very different because of approach, technique, and personal expression.

4. Help students, through class discussion, to understand how human experience affects artistic expression and encourage them to express themselves personally in their art.

5. Demonstrate the multi-color paper plate printing process to students. Share with students the variety of drawing techniques that can be used in creating prints, using tusche and a nib pen, litho and regular crayons, and reproducing pens, markers, and pencils.

6. Have students choose an artist or artistic style to reinterpret in lithography. Students should be encouraged to create their own images and put together their own compositions. They should combine the essence of the artist and their own interpretation, images, and colors.

Glossary:

- **Brayer** - a rubber roller used in applying printing ink to the master.
- **Etching press** - a manually operated printing press that is used for making prints from the design that is etched or engraved into the plate. In the case of paper plate lithography, this press prints the design that is drawn on the master.
- **Lithography** - the art of printing from a flat stone or metal plate. The design which is to be printed is put on the surface with a medium to which ink will adhere and the blank areas are treated with a medium that repels the ink.
- **Master** - the term for the paper plate on which the original design is drawn.
- **Plate** - the treated lithographic surface on which the original design is drawn (metal plate or paper plate).
- **Plate solution** - a special product used with paper plate lithography that allows the printing ink to adhere to the drawing and repels ink from the rest of the plate.
- **Printmaking** - the art of making prints; an art form that uses a graphic medium (etching, engraving, lithography, woodcutting, silk screening, block printing, collagraphs).
- **Register** - to be in register means to be in correct alignment or proper position.
- **Tusche** - a substance like ink used in lithography for drawing and painting on the master. Printing ink will adhere to tusche.
Supplies:

Litho Sketch Products:
- Paper Masters:
  - 4" x 6" (Catalog # 12307G)
  - 11" x 14" (Catalog #12304D)
  - 15" x 20" (Catalog #12305E)
  - 22" x 30" (Catalog #123165)
  - 25" x 36" (Catalog #12306F)
- Plate Solution (Catalog #12308H)
- Liquid Tusche (Catalog #12332L)
- Inks — black plus several colors
- Reproducing pen (Catalog #12334N)
- Reproducing pencils (Catalog #12335P)
- Reproducing crayons (Catalog #123381)
- Penholder (Catalog #12301A)
- Pen Point #512 (Catalog #12331K)
- Cotton Pads (Catalog #12302B)
- Black Sharpie markers
- Newspaper
- Newsprint
- Printing paper
- Inking slab
- Mineral spirits

Optional Supplies:
- Gum Solution (Catalog #12310K)
- Hand Soap (Catalog #12315R)
- Brush Flush (a new non-toxic cleaner for oil-based inks, Catalog #12343A)

Equipment:

- Light table (or brightly lit window)
- Etching print press (a slab roller can be used, if it is clean and the bed is built up with etching blankets)

Instructions:

1. Cut a piece of paper the exact size the print is to be. Create the design on this paper, leaving a 1-inch or larger border. Remember, the master will print in mirror image, so numbers and letters must be drawn in reverse. The border will provide handling space on the Litho-Sketch Master and prevent running the brayer too close to the edge and getting ink on the work space. Decide which parts of the design will be in color.

2. Cut four Litho-Sketch Masters (paper plates) for the three color plates and the one black plate that are the exact size as the paper in Step #1. To make four final prints, cut four pieces of good printing paper the exact size as the masters. If paper and plate size is exact, only corners will need to be matched when printing, and the prints will not be out of register.

3. Mark "top" on each plate and each sheet of paper to avoid making the mistake of printing upside down.

4. Tape design to a light table (or use a brightly lit window if a light table is unavailable). Begin with the plate for black. Place this plate over the design and trace with a pencil. Do the same with each of the three additional masters to make plates for each of the three colors.

5. Using Litho Sketch reproducing pencils, crayons, pens, and liquid tusche (applied with a nib pen or brush) or ordinary crayons or marking pens, go over the design on each plate, choosing the medium to create the desired effects. All drawing on the plates is done in black, which will not print black, but will accept whatever color ink that is applied to it. If planning to use black, yellow, red, and blue, plate #1 should have the entire drawing on it; plate #2 should have only the areas drawn which will be in yellow; plate #3 the red, and plate #4 the blue.

6. The drawing must be desensitized with Litho Sketch Plate Solution which bonds the drawing to the master and allows ink to adhere only to the drawing part of the plate. The solution must be applied between each inking.

7. Litho-Sketch inks can be mixed just like paints to create additional colors.

8. Print lightest colors first. For example, print yellow, then red, then blue, then black. Black, printed last, is the outline of your drawing. If the masters are in register, the black will make a perfect outline around the colors.

9. Make three preliminary prints on newsprint paper of each master before printing on good paper. Two to three inkings are required for a plate to print properly.

10. To prevent smearing on the final prints, be sure each color is thoroughly dry before the next color is printed.

11. The number of prints from a Litho Sketch Master will vary depending on the detail in the drawing and the materials used. Approximately 10 to 20 prints can be expected from each master.
Additional Suggestions:

1. For less advanced students, other subject options are:
   a. Art deco drawings with tusche and reparation pens incorporating line quality and design.
   b. Animal drawings and designs based on Andy Warhol’s “pop art” series of endangered animals.

2. If no press or slab roller is available, prints can be made using a wooden spoon. In this case, be sure to work with a small Litho-Sketch Master®, advising students to press down firmly and evenly.

3. When printing multi-color prints, the paper will be passed through the press many times, stretching the paper. Stretch the paper first by running it through the press before printing to ensure better registration.

4. Excessive plate solution on the Litho-Sketch Master® can be transferred to the printing paper causing a slight yellowing. Allow the plate solution to evaporate after inking the master and before printing.

5. To create additional colors without mixing inks, try printing one color on top of another while the ink is still wet (i.e. print blue on top of red to create purple). Be sure that the Litho-Sketch Master® is completely desensitized with plate solution. Otherwise the Litho-Sketch Master® will pull the wet ink up off the print. This technique, when done carefully, gives the final print more options for color and more detail.

6. If you wish to save the Litho-Sketch Master® (a week or more) for future printing, print the ink off of it by running it through the printer several times using scrap paper. Then apply a coat of gum solution on a cotton pad or sponge to the entire plate. The gum solution will allow the plate to be stored and will come off when the Litho-Sketch Master® is desensitized with plate solution.

7. Clean up can be fast and easy. Much of the ink on the brayer can be removed by rolling it on newspaper. The remainder can be removed with a special hand soap or a new non-toxic cleaner called Brush Flush®. Both will safely remove ink from the brayer, the inking slab, and hands. Mineral spirits on cotton pads can also be used. Throw away all cotton pads and newspaper when finished.

Follow-up Ideas:

These colorful prints are sure to attract attention. Display them in the art room, in showcases, and on walls around the school. For more information on paper plate lithography and additional ideas for using Litho Sketch®, send for a completely illustrated Litho Sketch® instruction manual from American Art Clay Co., Inc., 4717 W. Sixteenth Street, Indianapolis, IN 46222.

Examples of finished prints are by art students from Plainfield High School, Plainfield, Indiana, Jeanette Steck, Art Teacher.

This is Lesson #2 in a series of art plans for elementary, middle and secondary programs using American Art Clay Co., Inc. products. Successful lessons will be considered for future publication. Send your ideas and slides to David Gamble, National Marketing Director, American Art Clay Co., Inc.