

Screen Printing Stages

Name:

Hour:

Screen Printing Stage 1

Screening the Frame

- a. Make sure the frame is clean and free of any ink and tape.
- b. Tension the screen to a minimum of 20n. Check multiple spots on the screen.
- c. Make sure there is a minimum amount of pocketing in the corners.
- d. Trim off extra screen.
- e. Clean up and put away all tools.

*Once complete show Mr. Rodriguez the screen with the sheet.

Score: /5

Screen Printing Stage 2

Degreasing the screen

- a. Soak the screen with water.
- b. Use a dime size drop of grey soap.
- c. Spread the grey soap over the screen.
- d. Scrub in all four directions.
- e. Rinse the screen with the power washer.
- f. Leave to dry in the complete darkroom.

*Once complete show Mr. Rodriguez the screen with the sheet.

Score: /6

Screen Printing Stage 3

Coating with emulsion

- a. Remove the black cover off the coating tray.
- b. Stir the emulsion then pour it into the tray.
- c. Use a dry screen, coat the outside then the inside then scrape the inside then the outside.
- d. Place coated screen in the complete darkroom, use the rack with black covering.
- e. Clean up, return as much emulsion into the bucket as possible, then rinse everything with water and scrub thoroughly.
- f. Make sure to put the black cover back on the tray.

Mr. Rodriguez will do this stage

Screen Printing Stage 4

Exposing the screen to light

- a. Print your transparency page; make sure it has registration marks.
- b. Line it up face down on the screen, 4 inches from the top of the screen as close to the center as possible.
- c. Use the T-square to make sure the image is square, use the registration marks to accomplish this.
- d. Tape all four corners of the transparency page.
- e. Place the screen on the exposure unit outside of the screen down. Make sure bleed tubes are in the frame but outside the image area. Use potholders on the two sharp corners. Lock the top down and start the vacuum.
- f. Set the timer to 5 minutes. When the rubber is pulled tight to the frame, push the start button to turn the light on and start the timer.
- g. When the timer stops, remove your screen from the exposure unit, take off the transparency page and all tape.
- h. Save the transparency page, clean up your area.

*Once complete show Mr. Rodriguez the screen with the sheet.

Score: /8

Screen Printing Stage 5

Spray out the image

- a. Take your screen to the spray-out booth and set it so the outside of the box is facing you.
- b. Turn on the water then the power washer.
- c. Set the pressure washer to the lowest setting.
- d. Run the water until it is warm.
- e. Soak the front and back of the screen and let it sit for 60 seconds.
- f. Adjust the pressure washer to a medium low setting.
- g. Position the pressure washer nozzle about 6-12 inches from the screen and begin spraying out the stencil.
- h. Keep the nozzle moving so as not to “blow out” the emulsion on the screen.
- i. Double check that the stencil is completely sprayed out.
- j. Once the stencil is completely sprayed out place the screen on the left rack in the complete darkroom for drying.

*Once complete show Mr. Rodriguez the screen with the sheet.

Score: /10

Screen Printing Stage 6

Tape out the image

- a. Once your screen is dry it needs to be taped.
- b. Bring the screen out to the graphics lab and set it up at the taping station.
- c. You will need blue and white PMI tape that can be found in the top left cabinet above the large sink, as well as a pair of scissors.
- d. Pull off four strips of the PMI tape, each as long as one side of the screen.
- e. The idea is that you will make a frame out of tape, on the inside of the screen, along the edge of the emulsion. Be sure not to cover your registration marks.
- f. This will keep any ink from coming through these unintended areas while printing.
- g. Look for any unintended "pin holes" in the emulsion, if any are found place a small piece of masking tape on the outside of the screen to cover them. This step may need to be repeated once a first print is made.

*Once complete show Mr. Rodriguez the screen with the sheet.

Score: *17*

Screen Printing Stage 7

Printing

- a. Place the screen on the press loosely lock it into the clamps.
- b. Use your registration marks to align the screen with the vertical line drawn on the platen. If there is no line use the T-square to draw one. It needs to be down the middle of the platen, this must be measured.
- c. Once the registration marks line up with the line on the platen tighten the press clamps so the screen cannot move.
- d. Get out the ink, ink scoop, squeegee, and one red towel that you will need.
- e. Scoop one healthy scoop of ink onto the screen in the non-printing area.
- f. Use your squeegee to flood the image area, then bring the screen completely down.
- g. Make a print pulling the ink across the image area with the squeegee held firmly at a 45-degree angle.
- h. Roll the squeegee and return it and the excess ink to the bottom of the screen.
- i. If the print looks good, cover the registration marks and any visible pinholes.
- j. Remove the test sheet and dry it. Then make a final test print. If this print is good make your final print on a shirt. See Mr. Rodriguez for shirt loading technique.

*Once complete show Mr. Rodriguez the test sheet with registration marks and this sheet.

Score: */10*

Screen Printing Stage 8

Clean the screen and evaluate

- a. Scrape all ink off the screen using a spatula tool, return the ink into the original ink bins.
- b. Remove all tape from the front and back of the screen.
- c. Use a red rag with ink wash to wipe all ink off the screen. Make sure to wipe both side of the screen and the metal frame.
- d. **Reclaim:** This process will NOT remove ink! All ink must be cleaned off prior to the reclaim process.

*Once complete show Mr. Rodriguez the screen and this sheet.

Score: */8*

Screen Printing Stage 9

Reclaim and Degrease

- a. Place your screen in the dip tank with the top of the face down. Leave it in the tank for 5 minutes. Do not leave it longer.
- b. Remove from the tank and spray off in the spray out booth.
- c. All emulsion should rinse off.
- d. Place in the large sink
- e. Use one dime sized amount of gray soap on the center of the screen.
- f. Use a metal brush to scrub the screen in four different directions. (Vertical, Horizontal, Diagonal, and Diagonal)
- g. Place on the left drying rack in the complete darkroom to dry.

*Once complete show Mr. Rodriguez the screen and this sheet.

Score: */7*