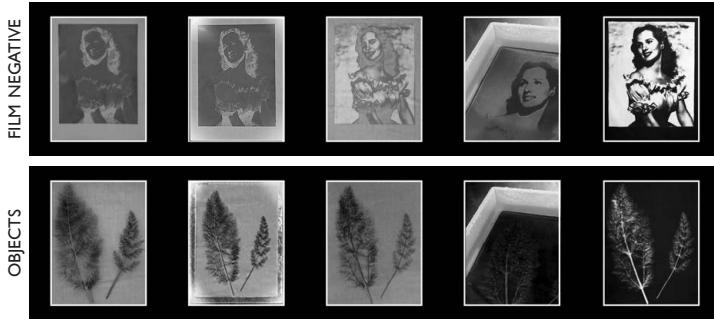




# Cyanotype

## Class Pack Instructions

**CYANOTYPE CLASS PACK** for ages 8+ • 30 people



1. Place film negative or objects on the cyanotype fabric
2. Secure with glass or pins and expose to sunlight
3. Remove film negative or objects from fabric
4. Submerge exposed fabric in water
5. Dry your cyanotype print

### What is cyanotype?

Cyanotype is an antique photographic process distinctive for producing Prussian blue monochromatic prints. Developed in the mid-19th century, cyanotype was quickly embraced as an inexpensive method for reproducing photographs, documents, maps and plans (hence the enduring architectural term “blue-print”). Famously, it was also used by Anna Atkins and other field biologists for indexing plant specimens—the first photographs ever made! Cyanotype is an extremely forgiving process, easy to do, safe and inexpensive. As one of the earliest photographic processes ever developed, it is still favored among alternative process enthusiasts and is often the first chemistry explored in alternative photo classes. It is a great group activity and a magical, fun project to do with kids!

### NOTES

The Jacquard Cyanotype Class Pack comes with enough materials for 30 students to make one print each.

There are enough backerboards, pins and film markers for six students to be working on prints at a time.

Use cardboard, straight pins (or tape) and permanent markers to accommodate more students at a time.

### CONTENTS

- 30 Pretreated Cyanotype Fabric Sheets (8.5" x 11")
- 30 Film sheets (8.5" x 11")
- 6 Film Markers
- 50 T-pins
- 6 cardboard backerboards (8.5" x 11")
- Instructions

## Instructions

### Creating images:

A **photogram** is a print made by placing objects on the fabric prior to exposure. Photograms can be made from any object that casts a shadow or blocks the light—plants, leaves, toys, tools, stencils, stones, sand, cutouts, chains, string, lace, doilies, etc. You can even place your hand on the print surface for the duration of the exposure to make handprints (careful not to move!). Light-weight objects such as leaves can be secured to the fabric by pinning, using the backerboard as a pinnable print surface. The film may also be placed over objects and pinned down to keep them secure. Glass or acrylic may also be helpful to keep the objects or film flush on the surface. **NOTE:** Pure acrylic sheeting allows UV light to pass through and can be used to expose cyanotype just like glass, but many types of acrylic, like Plexiglass, have UV blockers that can prevent or reduce exposure.

To make prints from **drawings**, simply use the Film Marker to draw on the film. **The Film is sided and the marker may only be used on one side—if you pinch the film with damp fingers, the stickier side is the one to draw on.**

To make **prints from photographs**, first create a film negative by inverting the image and printing it in black and white onto the film. To easily transform any image into a film negative to create photographic cyanotype prints, visit Jacquard’s online Negative Generator, at [www.JacquardCyanotype.com](http://www.JacquardCyanotype.com). Negatives may be printed through any inkjet or laser printer onto the film.

*Feel free to combine any of the above methods. Using the film to secure objects, writing the students' names on them beforehand is a great way to keep track of whose print is whose!*

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## Exposing:

1. Make exposures in sunlight (3-15 minutes, depending on conditions) placing objects or a film negative on the coated surface to create an image. The fabric will look bronze in color once fully exposed. (Note: over-exposure is almost always preferred to under-exposure).
2. Process prints in a tray or bucket of cool water. Wash for at least 5 minutes, changing the water periodically, until the water runs clear. Do not use soap. This is when the magic happens: with wetting, the print will instantly change from a bronze color to blue!
3. Air-dry the prints on a clean clothesline or on newsprint or blotting paper. Prints will slowly oxidize to their final, deep blue color over the course of about 24 hours. To instantly process prints to the final deep blue color, submerge washed prints in a dilute solution of hydrogen peroxide, then rinse and dry.

## NOTES

Cyanotype prints are permanent and archival. However, yellowing may occur if prints are exposed to phosphates or high pH solutions. Cyanotype printed fabrics should always be laundered in cold water using non-phosphate detergents. Use care while handling cyanotype prints, as sweat and hand oils may also cause discoloration.

Do not wet fabric or paper before or during exposure. Make sure your hands are dry when handling the sensitized fabric or paper. Make sure the printing surface and objects used are dry.

Cyanotype fabric can be ironed before exposure—just make sure to use a dry iron that does not spit or leak water. Iron the backside (not the print side) and use care while handling.

## Troubleshooting

### Blurry or out of focus photographic prints:

Using a film negative to make cyanotype prints is a contact-printing process. The film must be flush on the print surface for optimal resolution and detail. Otherwise, the print may appear out of focus or blurry. The easiest way to ensure good contact is to print on a flat surface and place a heavy piece of glass on top. NOTE: Pure acrylic sheeting allows UV light to pass through and can be used to expose cyanotype just like glass, but many types of acrylic, like Plexiglass, have UV blockers that can prevent or reduce exposure. Prints should also be facing the light source perpendicularly during exposure. If the sun is not directly overhead, this may mean it is necessary to use binder clips to hold the substrate, film and glass together.

### Dark blue or blown-out prints:

The dark areas of the film may not be dense and opaque enough to block the light adequately. To achieve good contrast on the print, the negative must be dense enough that it completely blocks the light in its darkest areas. Stacking two negatives may be the best solution—this will double the opacity and contrast. The print may also be over-exposed. Try reducing the exposure time.

### Pale or low-contrast prints:

The print was probably not exposed long enough. The light source may not be intense enough. Or the negative may be too dark. Over-washing can also result in pale prints.

### Water spots:

The print may become splotchy if you touch it with damp hands. Sometime leaves or design elements can produce moisture during exposure. You may also have splashed or dripped on it. Make sure when you submerge the print in water, you do so swiftly and without splashing.

### Discoloration to brown or yellow:

Discoloration can occur if the print is exposed to phosphates, soap or dirty objects. Make sure the drying line/surface and clothespins are clean. Make sure the washing tub or tray is clean and free of soap. Only handle prints with clean hands.

### Prints darken during drying:

The print was probably not thoroughly washed. Make sure the water runs clear before hanging to dry. Do not dry in direct sunlight.