

CYANOTYPE CARDS

Grade 9 Photography Lesson

Big Idea

- The visual arts use a unique sensory language for creating and communicating

Curricular Competencies

- **Create** a photographic print using sunlight-sensitive paper and found objects
- **Reflect** on the relationship between light, shape, and form in image-making

Concepts and Content

- positive and negative **space** in visual composition
- early photographic **processes**, especially cyanotype printing

Materials and Technologies

- Cyanotype paper
- Printer
- Plain/card paper
- An original photo that has meaning to them
- Computer with PhotoShop (GIMP is a free, open-source program if PhotoShop is not available)
- Transparent acrylic sheets
- Found objects (leaves, keys, lace, paper cut-outs, etc.)
- Sinks for rinsing prints
- Paper towels
- Sunlight

Cyanotype Tutorial:



Created by Amber Grant
Cowichan Secondary, SD#79

*This project has been designed for Grade 9 students using the Visual Arts 9 curriculum, but it can be adapted for Photography 10-12 students, who could treat their own watercolour paper or fabric with a cyanotype solution. **Please note that teachers should prepare the solution first, following proper safety procedures (WHMIS).***

PROCESS

Class 1: Introduction & Preparation

Discussion: History of cyanotypes and photo negatives from the past

Demonstration: Show examples of cyanotypes and how exposure works

Mini-Lesson: Positive vs. negative space in art and photography

Activity: Students gather found objects from around the school

Class 2: Making a Photo Negative Using PhotoShop

- Have students put chosen digital photo into PhotoShop.
- Get them to follow your oral directions or use the written handout.
- They will need to convert the image into an inverted black and white image.
- Print the image onto clear printer sheets.
- Have your students cut the image to size.

Class 3: Creating the Cyanotype

Setup: Review safety and handling of cyanotype paper (UV sensitive!)

Hands-on Activity: Students arrange objects and photo negative on cyanotype paper outside and expose them for the recommended time.

Development: Rinse in water, pat dry with paper towel, and set aside to dry

Discussion: Initial reactions and observations on exposure – is it over or under exposed? How do we know? What can we do differently the next time.

Standard Cyanotype Recipe

for teachers who'd like to mix their own solution

Solution A (25g Ferric Ammonium Citrate + 100ml water)

Solution B (10g Potassium Ferricyanide + 100ml water)

Mix equal parts of both solutions just prior to treating paper or fabric, under dim lighting, and then keep paper in the dark until ready to use.

More information is readily available online for those who haven't done this before but would like to try. One option for storage and disposal is to work with your school's science department.

Class 4: Making the Card

- Instruct students to fold plain/card paper into a card. (Blank cards, such as Strathmore ones, could be purchased if budget allows.)
- Have them print out (or hand write) who the card is to and from, as well as a sentiment, inside the card.
- They will then need to glue the cyanotype image onto the front of the card.

Class 5: Reflection & Presentation

- Have students create a PowerPoint Presentation with a title page and 2 more pages.
- They can then photograph an image of the completed card and place the photo into the second slide of the PowerPoint presentation.
- Slide 3 is for their reflection:
 - Critique & Share: Students explain their choices of image, objects and design.
 - Written Reflection: Students answer a few prompts (e.g., What surprised you? What would you try differently next time?)



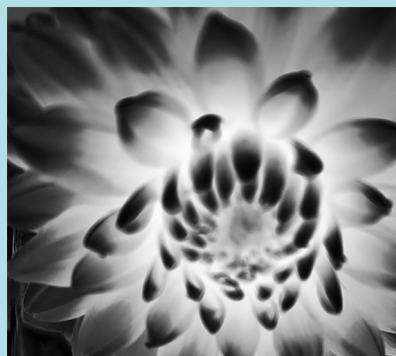
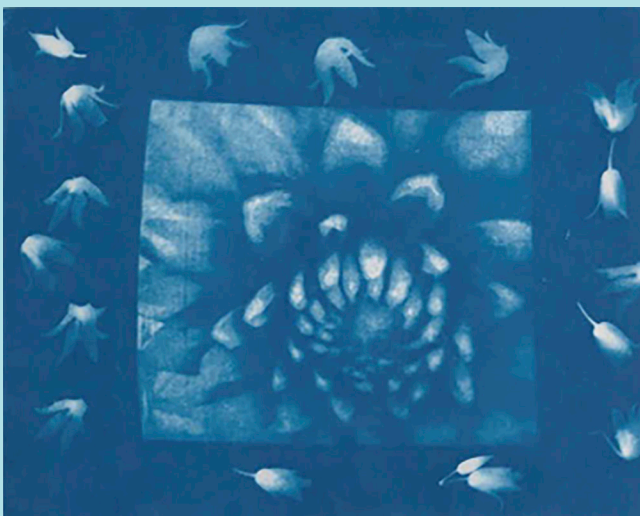
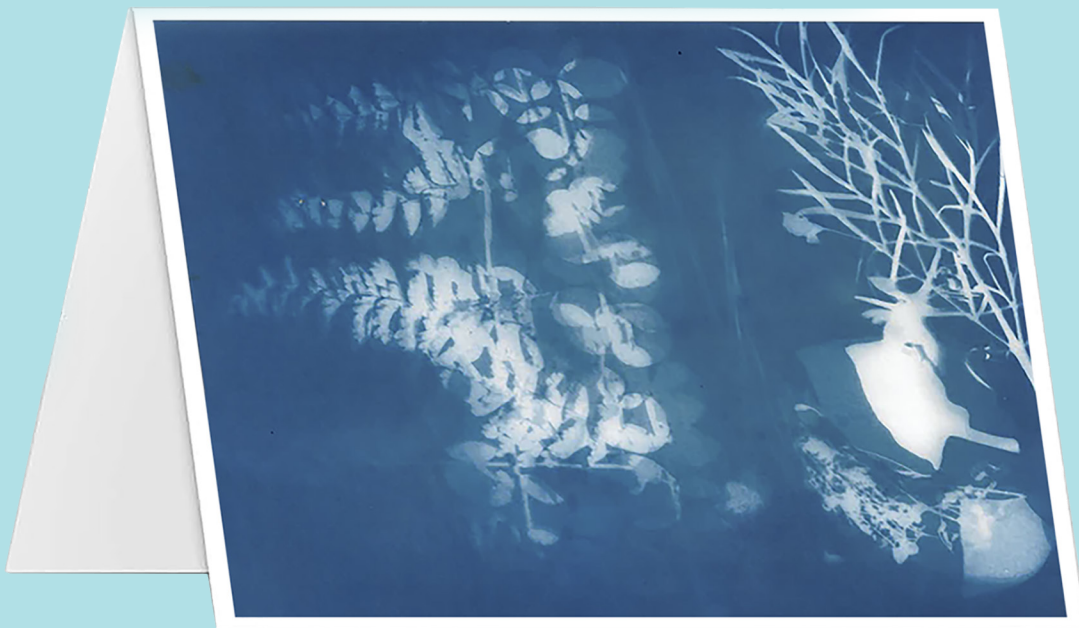
Stencil-based cyanotype



Photography-based cyanotype

EXAMPLES

Plant-based cyanotype



Plant & photo cyanotype

CYANOTYPE CARD WITH DIGITAL NEGATIVES

Assessment Rubric

CRITERIA	EMERGING	DEVELOPING	PROFICIENT	EXTENDING
Creative Use of Positive/Negative Space	Struggles with using positive and negative space. The composition feels crowded, chaotic, or disorganized, lacking clarity and purpose.	Uses positive and negative space, but lacks consistency or purpose in some areas. The composition may feel unbalanced or unfinished.	Effectively uses positive and negative space to create a balanced and engaging composition. The use of space is intentional, though it could be pushed further.	Demonstrates a sophisticated understanding and creative use of positive and negative space to enhance the visual impact and meaning of the work. Every element is intentionally placed for maximum effect.
Understanding of Photographic Process	Struggles with the technical aspects of the photographic process. There are significant issues with lighting, focus, exposure, etc., which compromise the final product.	Shows a basic understanding of the photographic process. There are noticeable technical issues (lighting, focus, exposure) that affect the overall quality of the work.	Displays a solid understanding of the photographic process with a few minor technical issues. The outcome is effective, with some room for improvement in technical mastery.	Demonstrates mastery of the photographic process, effectively controlling technical aspects (lighting, exposure, focus, etc.) to achieve the desired outcome. Shows creativity and skill in post-processing.
Engagement and Attention to Detail	Shows limited attention to detail. The work appears unfinished, rushed, or lacks consistency, with elements that detract from the overall quality of the project.	Demonstrates some attention to detail, though certain areas appear rushed or underdeveloped. Some elements of the project lack polish or refinement.	Shows strong attention to detail with most elements executed well. There may be minor aspects that could be refined further, but the overall project is complete and cohesive.	Demonstrates exceptional engagement and attention to detail. All elements of the project are carefully considered and executed with high craftsmanship. The final piece reflects a deep commitment to quality.
Reflection and Communication of Ideas	Reflection is minimal or unclear. The communication of ideas lacks focus or is not well articulated. The intent and process are vague or absent.	Provides a basic reflection on the project, but the communication of ideas lacks depth or clarity. The rationale behind the artistic choices is not fully developed.	Reflects thoughtfully on the project, articulating the intent and process clearly. The ideas are communicated effectively, with some areas that could be expanded or clarified.	Provides a comprehensive, insightful reflection that deeply explores the intent, process, and creative choices. Demonstrates advanced communication of ideas and clearly articulates the vision and impact of the work.

CYANOTYPE CARD WITH DIGITAL NEGATIVES

Instructions for Students

Create a digital negative from a photo in Adobe Photoshop, print it onto clear plastic (transparency film), and use it with cyanotype paper to create a handmade Mother's Day (or other) card.

This project blends digital editing with historic photographic processes.

WHAT YOU WILL NEED:

- Cyanotype paper
- Card stock
- Computer with Adobe Photoshop
- Image of your choice
- Transparency sheet to print on
- Sink and water

STEPS TO CREATE THE CYANOTYPE CARD:

Photo Selection:

- Take a portrait or still life photo that symbolizes your appreciation for your mom or a significant person (flowers, hands, favorite objects, etc.).

Editing the Photo in Photoshop:

- Open the photo in Photoshop (Watch in class demo)
- Convert the image to black and white:
- Image → Adjustments → Black & White
- Invert the image to create a negative:
- Image → Adjustments → Invert (or press Ctrl+I / Cmd+I)
- Adjust contrast and brightness to ensure strong black-and-white separation:
- Image → Adjustments → Levels — move sliders to increase the darks and lights.
- Resize the image to fit the card (ex: 4" x 6" or smaller if needed).
- Save the file as a high-resolution JPEG or PDF.

Printing the Digital Negative:

- Submit your altered image for printing.
- Your teacher will print the inverted image onto clear transparency sheets.

Cyanotype Exposure:

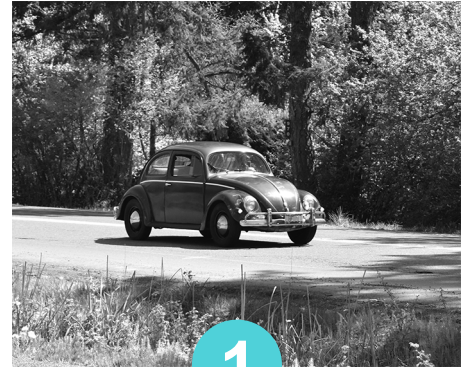
- Place the transparency ink side down on top of a pre-coated cyanotype sheet.
- Expose to sunlight or UV light for about 10-15 minutes, watching for the color change. (You will notice a change)

Developing the Print:

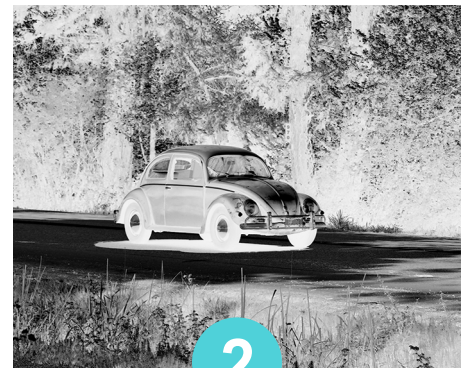
- Rinse the exposed cyanotype in cool water until the unexposed areas turn white and the image appears.
- Dry flat.

Creating the Card:

- Once dry, mount the cyanotype print onto a folded cardstock.
- Decorate or write a personalized message inside the card.



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ASSESSMENT:

Creative Use of Positive/Negative Space. Elements have been arranged for maximum impact.

Understanding of Photographic Process. Ability to follow directions to successfully create a digital negative and cyanotype print.

Engagement and Attention to Detail. Quality of digital editing and cyanotype exposure. Neatness and overall effort in creating a finished card.

Reflection and Communication of Ideas. How well the image and card design express a personal connection.