

Solar Prints

Essential Question	Does knowing the art methods of the past inspire art of the present?
Grade	4th
Time	30 minutes set up; 1-2 days for paper fading to occur
Art Concepts	Cyanotype, blueprint, solar print, print
Materials	Black construction paper, glass or plastic from a frame to cover paper, flat objects (ex: leaves, coins, paper, grasses etc), sunlight
Artwork In Focus	<u>A Pueblo Woman with Two Children, 1890 by Charles F. Lummis</u>
Talking About Art	<p>Take a look at Charles F. Lummis', <i>A Pueblo Woman with Two Children</i>. What do you see happening? What do you notice about the objects, clothing, and setting of the woman and her children in this photograph? What does the color of the photograph add?</p> <p>Charles F. Lummis was an American artist and writer in the late 19th - early 20th century who was an advocate for the rights of Native Americans and historic preservation. He took photographs, published articles, and collected Native American artifacts throughout California and the American Southwest. In 1903, he founded the Southwest Museum which is the first museum ever built in Los Angeles.</p> <p>One of Lummis's favorite methods of printing his photographs was through a process called a cyanotype, or solar print. Cyanotypes were invented in 1842, just a few years after the invention of photography. It uses a light-sensitive paper treated with chemicals that stains the paper a special shade of blue when it is exposed to sunlight. After being in the sun, an image is revealed on the paper by washing off the chemicals in water. Cyanotypes were a simple and inexpensive way for early photographers and engineers to make prints, or <i>copies</i>, of their photos and drawings. In fact, this is where the term blueprint comes from!</p>
Making Art	Have you ever left a piece of dyed paper or fabric out in the sun for a while? If not, what do you guess might happen? In this activity, we are going to let the sun do all the work!

1. First, let's go on a scavenger hunt around your home to collect items that appeal to you due to their shapes and how they might reflect your personal surroundings and the time period you live in. It is important, however, that your items are relatively flat for this project. Some examples of flat objects are coins, stickers, leaves, flowers, keys, fabric scraps, shoelaces etc. You will not see the details of the objects, but only their outer shapes. You can even cut out shapes from paper of people, words, or objects to add to your story if you'd like.
2. Once you have your items, grab a piece of black colored construction paper and the glass or clear plastic from an old picture frame. You can also use a clear sheet protector or even plastic wrap as long as you weigh it down with something heavy so it doesn't blow away. You will be using this to press on top of your paper so be sure it is large enough in size.
3. Next, seek out an area outdoors or beneath an open window that has full sun exposure and place down your construction paper. Arrange your materials on the paper to create a composition that you like. Once you are happy with your composition, press the glass or plastic over the top to keep it all in place.
4. Walk away and let it sit out in the direct sun for at least 8 hours, though 24 hours would be even better!
5. After you have exposed your artwork to the sun for a good amount of time, come back and take away everything but the paper. You will discover an amazing printed image on your paper, created by the energy of the sun!

Reflection

History Connection: Consider how your print reflects your own history.

Science Connection: Why do you think the construction paper changed when it was left in the sun? What do you think would happen if you exposed your artwork to the sun even longer? Due to the ultraviolet radiation of the sun, the dye in the paper undergoes a chemical reaction and breaks down. This causes the paper to become lighter the longer it is exposed. The areas of the paper that are shadowed by the objects do not change because they are blocking the rays of the sun.

Curriculum Connections

California Arts Standards for Public Schools - Visual Arts

4.VA:Cr1.1 Brainstorm individual and collaborative approaches to a creative art or design problem. 4.VA:Cr2.1 Explore and invent art-making techniques and approaches.

Prepared by Katy Unger with the Los Angeles County Museum of Art (LACMA) Education Department.