

Construction Paper Sun Prints

Use the Sun's ultraviolet light to create art!



[Image: Highlights.com](http://Highlights.com)

Materials Needed:

Construction paper, objects to make prints with (leaves, shells, feathers, small toys, etc.), clear picture frame or piece of plexiglass, a sunny day, access to outside.

Note: Darker shades of construction paper work best. Make sure the paper is not treated to be fade-resistant.

Instructions:

Step 1: Gather objects to make your artwork. Small and flat items work best.

Step 2: Arrange your objects on a piece of construction paper. Experiment with shapes and designs.

Step 3: Place a clear picture frame or piece of plexiglass on the construction paper. This will help keep the objects from moving. If your objects are heavy enough to stay in place, you can skip this step.

Step 4: Take your art outside and leave in full sun for four to six hours. The construction paper exposed to UV light will become lighter, while the areas covered by the objects will stay darker.

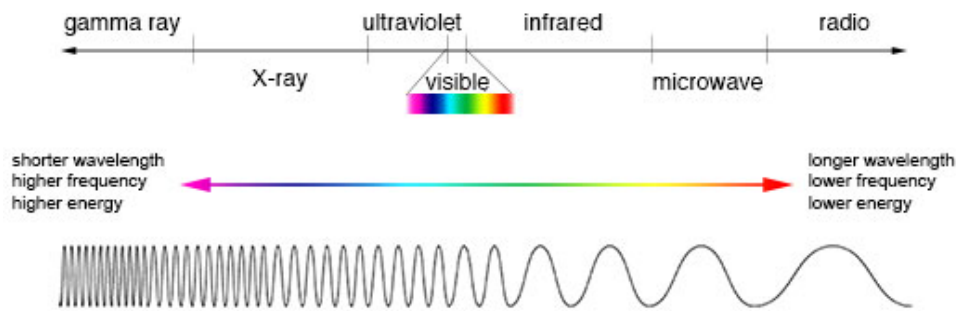
Step 5: Remove the objects from the paper and admire your artwork!



Extension: Try using sun print paper, which uses paper coated with chemicals sensitive to ultraviolet light. Sun print paper can be ordered at www.sunprints.org. Adjust exposure times according to the instructions.

Ultraviolet Light and the Sun

Our eyes see only visible light, but the Sun gives off light across the *electromagnetic spectrum*. This spectrum consists of light energy travelling in waves, from very short waves like gamma rays to very long waves such as radio waves. Ultraviolet, or UV light, has shorter waves than visible light.



Electromagnetic Spectrum. [Image: NASA's Imagine the Universe.](#)

Ultraviolet light waves have enough energy to break the bonds of chemicals, like the dyes in paper. This changes the paper's color. Sun prints work by shielding areas of the paper from sunlight. These areas remain the original color while the rest of the paper gets lighter.



Delesseria alata by Anna Atkins.
Image: New York Public Library.

Sun prints are a kind of *cyanotype*: a process that uses sunlight to develop images. Artists use paper or fabric coated with chemicals sensitive to ultraviolet light. In the 1840s, the botanist Anna Atkins used the cyanotype process to make prints of algae, and published them in her book *Photographs of British Algae: Cyanotype Impressions*. Atkins is considered one of the first female photographers.

See cyanotypes by botanist and curator Steffi Ickert-Bond:

www.frontierbotany.info/botanical-art/

Did You Know? Ultraviolet light can be harmful to humans. It can give us sunburns and contribute to skin cancer, so we have to be careful to wear sunscreen. But UV light can be helpful to other animals! Many animals, including some insects, birds, and fish, can see ultraviolet colors invisible to human eyes. This helps them find food, attract mates, and avoid predators.