

The background of the slide is a watercolor wash in various shades of blue and teal. The colors are blended together, creating a soft, organic texture. The darker blues are on the left side, while the lighter, more cyan-like tones are on the right. The overall effect is artistic and serene.

SOLAR DYING

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Sample Footer Text

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Solar dying is an easy and interesting way for children to see how color can be transferred from plant material to fabric.

Before we had synthetic dyes, fabric and yarn were dyed using plant material. Using plants is a much more environmentally friendly process. The synthetic dying process is a major polluter of the environment.

This solar dying project aims to raise children's awareness of natural plant dyes and hopes to preserve some of the traditional knowledges about natural dying processes.

The objective of this project is to create as many different colors as possible and to record which plants give which color.



What is solar dyeing?

Solar dyeing is the process of extracting dye from dyestuffs using the heat of the sun to heat the surrounding water the dyestuff is steeped in to draw out the dye. Your geographical location and time of year will influence the temperature your solar dye reaches – this will also affect your resulting colour. Using a glass jar and placing it in the sunniest location possible is important to maximize dyeing potential. The process although passive, is much slower than the more common method of heating your dyestuffs over a stove or burner. Solar dyeing can take weeks, rather than hours, to reach a maximum colour depth. However, the bonus is that a long drawn out process can yield different colours and is much more hands off which takes up less time having to managing the process.



For each child in your class you will need to get:

- One large glass jar with a tight lid.
- Stirring stick.
- A piece of cloth about 10 cm square

Step 2: Prepare your cloth

You will need to mordant the fabric before solar dyeing it. I recommend using **aluminium acetate** to do so. Alum is much safer than other metallic salt mordants and does a much better job than fixatives such as salt or vinegar in making a dye permanently colourfast.

Use 10% alum to silk and wool fiber weight (e.g 100 grams of fiber requires 10 grams of alum), or 15% for linen and cotton. Avoid using more alum than this because in excess alum can damage your fibers.

If you cannot get alum boil your fabric in an aluminium pot for half an hour.



Collect your plants

Wild foraged dyestuffs are a great source of free dye, for example, apple tree leaves, chamomile, queen anne's lace, oak leaves, walnut leaves, alder leaves, and tree bark from fruit trees, alder and birch.

Here are a few common plants.



Chop up your plant and put it in the jar with the piece of fabric. Add enough very hot water to cover the contents.

Making sure that everything in the jar is submerged will reduce the risk of mold from growing.

Put the jar in a sunny spot and stir every day.

Each day you will see the fabric taking the color from the plant.

Once you are satisfied with the colour take it out and hang it up to cure.

Tip: If you don't like the colour or intensity of your fiber after a week or two, put the lot into your dye pot and simmer it on the stove for a few hours. This may help as some dyes only take if the yarn is heated.



Once you have removed your fiber from the solar dye jar, squeeze it out and lay it on a towel in a shaded ventilated area to dry. You want to give the dye time to cure or set before rinsing the excess dye from the fiber.

Rinse the fiber

After a few days of curing, you can rinse your fiber with fresh cool water. If you are likely to be washing your fiber in the laundry, I recommend using some pH neutral soap to make sure you wash out all the dye that has not chemically bonded to the fiber. This is ensure that your other laundry garments are not accidentally stained or dyed!