

How to Tie-dye

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Introduction

These instructions will teach you all you need to know to get started with tie-dyeing.

We have a blast with tie-dyeing. It's easy to make fun clothes that are unique, fun to make, and not expensive.

Tie dyeing has the following basic steps:

1. Preparing the cloth with the soda ash fixer
2. Folding or otherwise preparing the cloth for the dye pattern (this is sometimes done before the soda ash fixer treatment)
3. Applying the dye
4. Packaging so the dye can react with the cloth (keep it damp so the dye to do its work; and contain the dye)
5. Washing

For tie-dyeing, using fiber-reactive dyes, which is what we do, you need plant-based fiber clothing: Cotton, linen, rayon are great choices. Most people dye cotton most of the time. It dyes really well and is durable and inexpensive. (Animal-based fibers, such as wool, silk, cashmere, etc., require a different kind of dye – generally acid-based dyes that require high temperature steeping – and are more difficult to dye than plant-based fibers.) The technique in these instructions assumes plant based fiber and fiber-reactive dyes.

Materials

You will need the following materials (seems complex; but it's not; we want to help it go as easily for you as possible, hence this a very complete list):

- Rubber gloves to protect your hands from dye and soda ash (we prefer nitrile gloves, like doctor's gloves, cheap to buy in boxes of 100)
- Dye-able clothing
- Dye (we would recommend at least the 3 primary colors, the 3 secondary colors, and black)
- Soda ash (Fixer)
- Synthrapol or Professional Textile Detergent, OR Dawn dish soap (we use Dawn) approximately 1/4 cup per machine load.
- Plastic funnels (I like to have one for each color and at least 5 extras)
- Plastic measuring spoons (I have 8 sets that include: Tbsp, ½-Tbsp, tsp, ½-tsp, ¼-tsp)
- Plastic squeeze bottles with caps for applying the dye (at least one for each color, 16-oz. and 8-oz. sizes are best)
- Teflon plumber's tape (for the threads of the squeeze bottle caps to prevent them leaking dye)
- A large bucket for the soda ash solution
- Large spoon to stir the soda ash solution and press the clothes into it
- Gallon-size Ziplok bags
- Paper towels
- A garbage pail lined with a plastic bag
- A large paper clip for un-clogging the tips of the squeeze bottles
- Plastic sheet to cover your work surface (replace regularly to avoid leaks)
- Masking tape to hold down the plastic sheet
- Drop cloths to protect your floor or carpet from spills

Also helpful:

- Rubber bands (for holding folded shapes in place)
- Washable markers (for drawing patterns on cloth that will wash out later)
- Permanent marker (to identify pieces of clothing)
- Chop sticks (for pushing the dye powder through the funnel)
- Plastic laundry basket (to put the bagged dyed clothes into)
- Dental floss and a large needle (for doing stitched patterns)

Preparation

If you are going to make stitched patterns on your clothing, do this before the dyeing session. (See the patterns section below.)

First, prepare your work area. Place your plastic sheet over the work surface and tape it in place. Place your drop cloths around the work area to prevent spills getting onto your floor. Heavy canvas painting drop cloths work great. Line a large garbage can with a plastic bag and place it at a place that is convenient to your work surface (you will be dropping paper towels with dye on them and used rubber gloves into it).

Put on your gloves now. (Keep them on whenever handling soda ash, the treated clothing, or dye in any form.)

Next mix the soda ash solution in the big bucket (place it in a sink if you can). Dharma Trading instructions recommend a cup of soda ash powder per gallon of solution. I'm not usually that careful measuring the soda ash. (We are very careful measuring dye however.) We place the first few garments in the solution now.

You need to leave a cotton garment soak in the soda ash fixer solution for at least 5-10 minutes before applying dye.

Next mix your dyes. We use measuring spoons and funnels only once: After they have been used to put dye into a bottle, we drop them into the sink for later rinsing. This is why we have many funnels and measuring spoons. We have found it very important to mix fresh dye (and soda ash solution) immediately before doing the dyeing. Do not be tempted to save and reuse dye or make it up a day or days ahead of time. You are after the vibrant color these dyes give; if you don't mix them up fresh, you won't get those colors.

Put the dye into the plastic squeeze bottles according to the recipes below. (Polyethylene bottles are hard to write on. We wrap them with green 3M painter's masking tape and label them on the tape with the colors they will hold. It's best to always use the bottles for the same color each time.)

The standard mix for pre-formulated dyes (as they come from the Dharma Trading – where we get all of our dyes) is: 1 tablespoon per pint (16 fluid ounces) of dye. You can mix the secondary colors using the primary colors as shown below; but we buy the colors premixed from Dharma.

For 1 pint (16 fluid ounces) of dye:

Pink: ¼ tsp of fuchsia

Green: 1 Tbsp yellow, 1 tsp turquoise

Purple: ½ Tbsp fuchsia, ½ Tbsp blue

Orange: 1 Tbsp yellow, ¼ tsp fuchsia

Volume conversions:

Mixed liquid dye volume			1X - dye POWDER quantity			
Size	ounce	ml	ml	ounce	tsp	Tbsp
Gallon	128	3785	59.1	2.000	12	4
Quart	32	946	29.6	1.000	6	2
Pint	16	473	14.8	0.500	3	1
Half-pint	8	237	7.4	0.250	1.5	0.5
4 ounce	4	118	3.7	0.125	0.75	0.25
2 ounce	2	59.1	1.8	0.063	0.375	-----
1 ounce	1	29.6	0.9	0.031	0.1875	-----

We tear off a stack of paper towels and place the stack next to the work area for easy use.

We place a stack of gallon size ziplok bags next to the work area for bagging the dyed clothing. Now you should be ready to go!

Dharma also recommends adding urea to the dye mixes. It is supposed to make the dye dissolve better and to improve the brightness of the colors. Generally, we haven't needed to use urea. Below are the urea amounts recommended by Dharma:

WATER	DYE	DYE*	DYE**	UREA
1 cup	2 tsp	4 tsp	8 tsp	1 Tbsp
1 pint	4 tsp	8 tsp	5 Tbsp	2 Tbsp
1 quart	8 tsp	5 Tbsp	1/2 cup	1/4 cup
1 gallon	1/2 cup	1 cup	2 cups	1 cup

Making the Patterns (Folding & Dyeing)

This is a lot of the fun of tie-dyeing. We will show how to do several of the simple but fun patterns for tie-dye. If you want to get into tie-dyeing more deeply, look for other sources of tie-dyeing ideas. The "Customer Pictures" page on the Dharma Trading website has lots of ideas.

This section will show you how to do just a few simple patterns: The swirl (the most popular), the stripe, the snake, bunches, and spots.

Folding Overview

We follow these steps for folding prior to dyeing:

1. Make sure your work surface is clean and there is no stray dye.
2. Pull the item out of the soda ash bath and wring out the solution back into the bath
3. For all patterns (unless you've pre-stitched them): Lay out the piece flat on the work surface. Then begin your folding pattern.
4. Fold the desired pattern.
5. If desired, bind the folded shape with rubber bands (we rarely do this).
6. At this point, we place the folded pattern onto one or two (for large pieces of clothing) paper towel(s). We have found that this helps very much in preventing dyes from mixing where you don't want them to and produces a crisper tie dye pattern. (This step is not required.)

Dye application overview

Apply the dye using the squeeze bottle tip very close to the fabric to prevent it going where you don't want it to. Apply the dye according to the desired pattern. If you want more white in your pattern, apply less dye. But if you want very bold, solid colors, then use the tip of the dye bottle to work the dye into the folds of the fabric to ensure dye gets everywhere. To clear clogs in the squeeze bottle tip, we use an unfolded paper clip.

We place the item, while dyeing, onto one or two paper towels to prevent pooling of dye. For the second side dyeing, we place it on fresh paper towel(s). The second paper towel(s) goes into the bag with the item.

After dye application, bag your item in a ziplok bag and seal the bag. It's important to seal it so that the item and the dye remain moist. The dye must be kept moist for the reaction with the fabric to happen (fixing the color).

Tips:

- The dye squeeze bottles like to “spit” dye, when you take their cap off and also as you bring them to the folded clothing. We try to tip the dye bottle carefully onto a location near the center of the area intended for that color. This helps prevent dye spits into other areas.
- Avoid pools of dye on the work surface. These make the colors run together and get “muddy”
- If you want avoid muddy looking colors, put colors next to each other that “get along” (following the rainbow sequence of: Red-Orange-Yellow-Green-Blue-Violet – start anywhere and go in one direction – works well every time.) Combinations that produce brown: Red + green, orange + blue, violet + yellow.

After completing the dye application and bagging the item, wipe down your work surface (it helps to sprinkle a little water on after wiping up most of the dye) to prevent inadvertently getting dye on the next piece.

Swirl Pattern

This is probably the most popular pattern and one you've almost certainly seen.

Pinch fabric at the center of where your spiral will start. Twist around that center pinch point by twisting your wrist and fingers. Twist until all fabric is in a spiral shape. The resulting fold will be more or less a circle.



Applying the dye: Think of your circular swirl fold as a pie. You will color each piece or slice of the pie. Apply desired dye colors to pie slice shapes. The point of the pie piece is at the center of the swirl (your pinch point) and it grows wider out to the edge of the swirl. Make sure you bring your colors out to the edge of the swirl – you will want to be able to see them on the other side when you flip it over.



After you have colored the first side, you have two options:

1. Color the back side the same colors, which produces the same pattern on both sides, just the colored swirls.
2. Or, you can dye the back side black, shown above (or any other single color). If you dye the back side black, this will produce lines radiating straight out from the center of your swirl pattern in black. This is a striking pattern and many people like it.

In either case, flip the folded clothing over onto another 1 (or 2) paper towel(s) and either repeat the color pattern you did on the front side (option 1), or apply a single color all over (option 2).

After dyeing, place the item in a ziplock bag and seal.

Tips:

- The center of the swirl pattern (your pinch point) has only a small amount of fabric to absorb the dye and it is the point where all the colors tend to come together (and mingle!). We advise using less dye in the center of the swirl and choosing carefully the colors that you bring all the way to the center (if you bring them all to the center, you will likely get a muddy look there).
- We have found it best, when coloring the back side all one color (usually black) to not bring the black color all the way into the center of the swirl (leave a small circle in the center uncolored) or all the way to the edge of the piece (leave a small area around the edge uncolored). This helps prevent a muddy effect in those areas.
- If you want the black stripes to be stronger on the front of the garment, then dye the back side of the garment first, with the swirl colors, and then color the front side second, with the black. (Vice-versa if you want less bold black stripes on the front.)
- Most people prefer to avoid placing the center of swirl over the center of a breast.

“Snake” pattern

This pattern has stripes that follow a shape or path that you decide on. It’s usually described as the snake, because most people make a sinuous pattern.

Before beginning your fold, think of the shape or path you want to trace on your item (in the example photos, below, the pattern is drawn on with washable marker). Then, beginning at one edge, and the start of your path, pinch the fabric between your fingers progressively across the item, with the space between your two hands tracing the path you are following. (You can draw the pattern on ahead of time using washable marker to help guide your pinching and folding.) Once you’ve pinched and folded all the way across the item, gather it up and place on paper towels.



On the first side, apply dye in stripes across the folded item. These will produce colored stripes that follow the pattern you pinched. Use as few or as many colors as you like.

Flip the folded item onto a new paper towel(s). Now either apply the same colors again, in the same pattern, or choose different colors, or all-one color (black is typical for this).

After dyeing, place the item in a ziplok bag and seal.

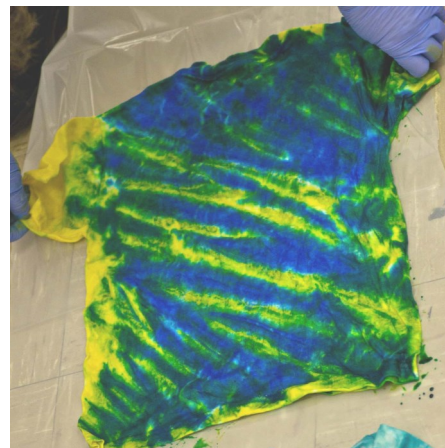
Stripe pattern

This pattern is similar to the snake pattern, except that you do not follow a curved path when you pinch/fold the item, you just go straight across. Typically, this pattern uses one color on the front side and then a contrasting color on the back side (best to choose colors that “get along” – see dye application overview).

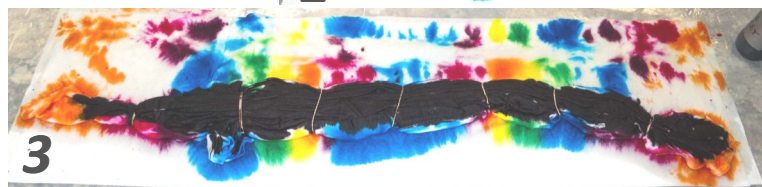
Much like you did for the snake, start pinching and folding the item from one edge and work your way all the way across. Most people find that putting the pattern on a diagonal to the piece of clothing produces the most interesting pattern. (But there’s no wrong way to do tie-dye!) Dye the first side all over one color (typically). Flip it over and dye the second side all over in the second color. After dyeing, place the item in a ziplok bag and seal.



Example: All yellow on the first side, all blue on the second side



Example: Rainbow stripes on the first side, all black on the second side



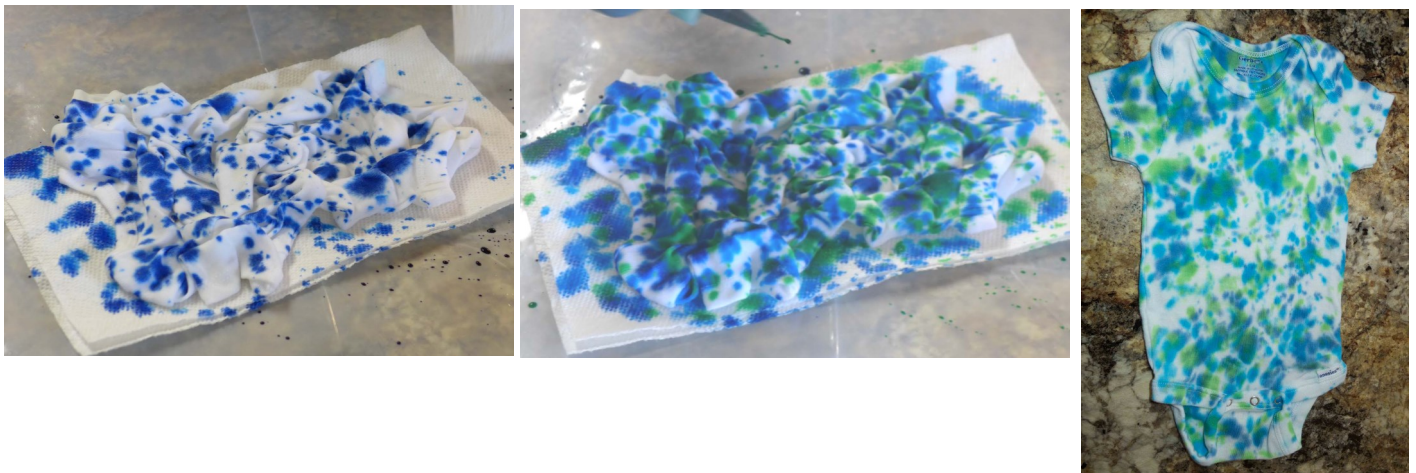
Pinch pattern

Some people like to just more or less randomly pinch up the fabric and then dye it one (or more) colors either on one side or both sides. A common choice for this is to dye two different shades of a similar color, one on each side of the folded item. Look online for examples of this. After dyeing, place the item in a ziplok bag and seal.



Splatter dots

For a polka-dot pattern with a lot of white space (or less if you like), sprinkle drops of the dye over one or both sides of the item. You can do this with the item either laid out flat (for more control over the appearance) or bunched up. After dyeing, place the item in a ziplok bag and seal.



For other patterns, refer to other source books and online help. The Dharma Trading website has a lot of tips on how to perform tie dye patterns.

Washing

For washing the tie-dyed clothing, you will need Synthrapol, or Professional Textile Detergent, OR, what we use: Dawn dish detergent. Use 1/4 cup per machine load.

Washing steps:

1. Put on your rubber gloves.
2. Remove the clothing from the ziplok bag and rinse it in a sink to remove the gross amounts of leftover dye and the remove most of the leftover soda ash solution. You do not need to rinse until the water is clear.
3. Next, place the clothing into your washing machine and fill the machine with warm or hot water. Let the clothing soak for 30

- 60 minutes. Turn on the machine and after it fills, stop the cycle for the soak time. Note that water will usually look like a mess: brown or black, pretty terrible. Don't worry, your clothes will come out fine.

4. After the soak, add the detergent and restart the washing machine to complete the wash.
5. Dry as you normally would for your clothes

It's a very good idea to wash tie-dyed clothing separately for several washings before mixing it with other clothes for washing.

Resources

We buy all our dyes, chemicals, and most of our dyeable clothes from Dharma Trading Company in California.

We buy our nitrile gloves on Amazon in boxes of 100. Kimberly Clark brand are excellent.

The dye colors we use (all from Dharma Trading (www.dharmatrading.com)):

#1 Lemon yellow

#25 Turquoise

#13 Fuchsia

#6 Deep Orange

#29 Bright Green

#300 New black

#14 Coral Pink

#9 Scarlet

#50 Jade green

#23 Cerulean blue

#46 Brilliant Blue

#119 Red Violet

#43 Blue Violet

#85 Sea Foam

#31A Forest Green

Less interesting:

#60 Lavender

#14A Hot pink