

Fabric Diffusion T-Shirts



Supplies

White T-Shirt (or other fabric)

Cups

Permanent Markers

Paper Towels

Isopropyl (Rubbing) Alcohol

Drop Cloth (cardboard, plastic, etc. to put under your work area)

Paint Brushes

**Parental supervision required*

Instructions:

Ask your parents for help when choosing your fabric and before using isopropyl alcohol!

- 1 Place down a piece of cardboard, a trash bag or another suitable drop cloth underneath your work area. If you're dyeing a T-shirt, be sure to put cardboard or plastic inside the shirt to ensure the design from the front doesn't bleed to the back, or vice versa.
- 2 Use your permanent markers to create designs on your shirt or fabric. Since we'll ultimately be making our ink run with our rubbing alcohol, abstract designs and patterns tend to work best. It is also a good idea to leave some white space.
- 3 Once you're satisfied with your design, pour some rubbing alcohol into a cup and dip in your paint brush and pull it over the shirt. Be careful not to soak the shirt; a small amount of alcohol will do the job and it's easier to add more than take it away.
- 4 You should notice your colors start to run and spread throughout the shirt. Keep going until you're happy with how the colors have spread, and don't forget to work on the back of your shirt once the front has dried.
- 5 Once you're completely finished and the alcohol has dried, we recommend throwing the fabric or T-shirt into the dryer on high to ensure the ink sets. When washing the shirt for the first time, we also recommend washing it with dark colors.

What Happened:

The process of ink spreading is an example of diffusion. Simply put, diffusion is when a lot of stuff is concentrated in one area and naturally spreads out into a larger area until it's roughly evenly distributed. For another example of diffusion, think about smoke. When a candle or an overcooked meal produces smoke, it doesn't stay in one place and it doesn't just disappear, even though it might look that way. What's really happening is that all the smoke moves around in the room it's in until it spreads so thin that we can't see it anymore.

**Parental supervision required. Recommended for ages 6+*