

Ohio State University Extension Lorain County 4-H School Enrichment Outreach


Tie Dye using Colorful Chemistry

Sally Hennessy, 4-H STEM Program Assistant, Lorain County Extension, 4-H Youth Development, The Ohio State University

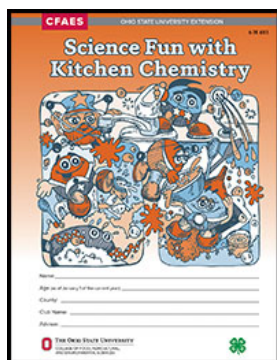
Creating tie dye is a fun way to combine art and science. Unfortunately, traditional tie dye techniques can be very messy.

Here's a way to **create tie dyed effects on fabric using a chemical reaction - that's SCIENCE!**

Chemistry? Chemical reaction? Absolutely!!

This activity is a favorite from the  4-H project book,

[Science Fun with Kitchen Chemistry](#)

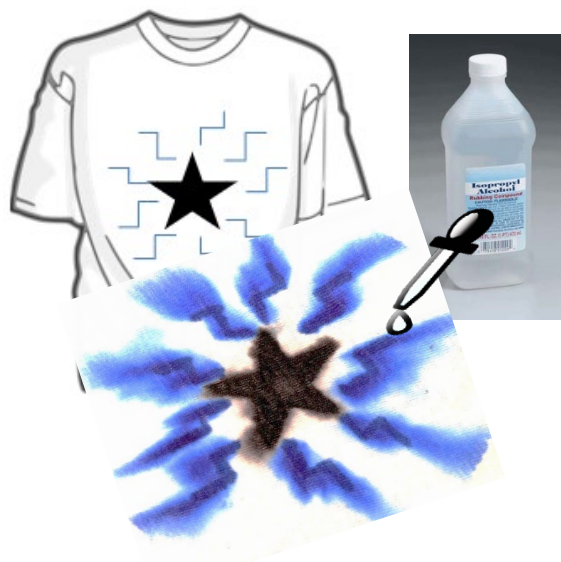


This and other 4-H project books filled with **lots of cool projects** are available at the above link!

Here's how you do it!

1. You draw onto a piece of fabric with a permanent marker like a Sharpie
Draw anything, use lots of colors!!
The Sharpie link has creative activity ideas!!
2. Then you drip or spray your drawing with a **solvent** – rubbing (isopropyl) alcohol, denatured alcohol, or even hand sanitizer!

GUESS WHAT HAPPENS???



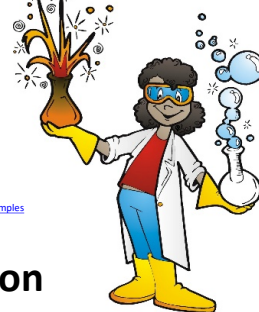
The Chemical Reaction:

A **solution** in chemistry is a **homogenous mixture** of two or more substances. So, in this case, what's the solution? **What two things combined?**

The substance which is dissolved is called a **solute**. For our colorful chemistry, **what is the solute? - That's right- the ink!**

The substance in which the solute (ink) is dissolved is called a **solvent**. **That's the rubbing alcohol.**

<https://www.solubilityofthings.com/solute-solvent-solution-definition-examples>



Try this technique on sneakers, t-shirts, or ??
See? **Science really is cool!!**



THE OHIO STATE UNIVERSITY
COLLEGE OF FOOD, AGRICULTURAL,
AND ENVIRONMENTAL SCIENCES



Lorain.osu.edu

CFAES provides research and related educational programs to clientele on a nondiscriminatory basis. For more information, visit cfaesdiversity.osu.edu. For an accessible format of this publication, visit cfaes.osu.edu/accessibility.