

15-Minute STEAM: Color Changing Invisible Ink

Supplies:

Baking Soda (1 Tablespoon) Q-tips (or a paintbrush) to apply invisible ink Rubbing Alcohol (1/2 cup) Turmeric (1 teaspoon)



Needed From Home:
Water (1/2 cup)
Measuring Cup
Measuring Spoons
Spoon for Stirring
Paper
Paper towels (or a paintbrush)
to apply color-changing solution

Adapted from researchparent.com/color-changing-invisible-ink/

- 1. Add 1 Tablespoon of baking soda to 1/2 cup of water.
- 2. Stir the baking soda into the water to make the "invisible ink"
- 3. Use q-tips to draw a picture with the invisible ink on paper.
- 4. While you are waiting for your paper to dry, mix up your color changing-solution. First, add 1 teaspoon of turmeric to 1/2 cup of rubbing alcohol.
- 5. Stir the turmeric into the rubbing alcohol. (Note: The solution can stain a little bit. You might want to use a glass or disposable bowl.)
- 6. After the paper is dry, use a paper towel (or paintbrush) to apply the color changing solution to the paper to reveal the secret message! (Note: If you use paper towels, your hands may be a little orange for a few hours afterwards, so you might want to use a paintbrush instead!)

The Science

Baking soda is alkaline, or basic. The turmeric/rubbing alcohol indicator solution is acidic. When basic and acidic things combine, they create a chemical reaction. So, when the indicator solution touches the invisible ink, a chemical reaction happens, and the ink changes color!





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