

Invisible Ink Secrets: Lemon Juice Spy Messages

What You'll Need

- Fresh lemon or lemon juice
- Cotton swab or small paintbrush
- Plain white paper
- Small bowl
- Light source (lamp, iron, or candle with adult supervision)

Step-by-Step Instructions

1. Squeeze some lemon juice into the bowl and add a few drops of water.
2. Dip your cotton swab or brush into the juice and write your secret message.
3. Let the paper dry completely - it will become invisible!
4. Reveal your message by gently heating the paper over a lamp, iron (no steam), or candle.
5. Be amazed as your hidden words appear!

The Science Behind It

Lemon juice is an organic substance that weakens paper fibers. When heated, the juice oxidizes faster than the paper, turning brown and revealing your hidden message. This process illustrates basic chemical changes and oxidation.

Printable Spy Mission Card

Your mission, should you choose to accept it:

Write a coded message to a friend using lemon ink. Deliver it and have them decode it using heat.

Top secret fun!

Certificate of Completion

Congratulations!

This certifies that _____ has successfully completed the Invisible Ink Spy Challenge and is now a Certified Junior Spy!