

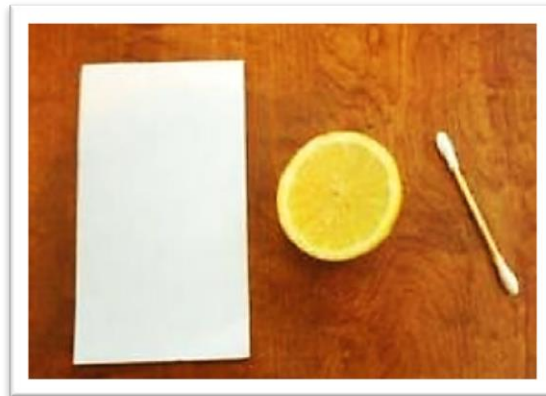


Magically Invisible Messages

Lemon juice is an organic substance that oxidizes and turns brown when heated. Diluting the lemon juice in water makes it very hard to notice when you apply it to the paper, no one will be aware of its presence until it is heated and the secret message is revealed. Other substances which work in the same way include orange juice, honey, milk, onion juice, and vinegar. Also, since lemon juice ink is a weak acid, it softens the fibers in the paper. The added heat causes some of the chemical bonds to break down in the dried juice and some carbon was cut loose. When the acidic parts of the paper are gently heated, they turn brown before the untreated paper does.

Materials

- Plain white paper
- Lemon juice in a cup or bowl
- Cotton swabs
- Hair dryer



Instructions

1. Dip the cotton swab in the lemon juice and write something on the paper.
2. Let the paper dry completely.
3. Gently heat the paper with the hair dryer to reveal the hidden message.

What secret message will you write?





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Summer Reading Club

Secret Agent Scavenger Hunt

Now that you have secret messages, let's be a Secret Agent. It's time to create a Secret Agent Scavenger Hunt!

Decide where you want your hunt to end and what the prize will be, prizes can be anything: a drawing, a fancy rock, a pretty flower. Then figure out how many clues you want to create.

Below are some ideas for clues or you can make your own.

Have Fun!

"I have four legs but no feet" - a table/chair

"Things go inside me when dirty but come out clean." - dishwasher/washing machine

"This flat box houses color and sound." - TV

"From this pot, the adults can drink a lot." - coffee pot

"Inside you'll find coats and shoes." - a closet

