BURNING MONEY

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Materials and Explanations

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Step-by-Step Photo Sequence
BURN YOUR MONEY

Burning money not a good idea unless you know the science secret. It's the fact that to everyone's amazement, paper money never actually burns (if you do it correctly).

Materials
• Rubbing alcohol
• Water
• Tongs
• Safety glasses
• Fire extinguisher

EXPERIMENT
1. Start by preparing a water-alcohol mixture by combining 70 mL of 70% rubbing alcohol with 30 mL of water. Make sure to stir the mixture thoroughly.
2. Borrow a $20 bill from your friend. Rule #1: Never use your own money.
3. Dip the bill into the mixture of water and rubbing alcohol, making sure the bill is completely soaked.
4. Remove the bill using the tongs - squeeze out any excess liquid.
5. Move the water-alcohol mixture to a safe place (away from the area where you are going to light the bill).
6. Hold one end of the bill with tongs and light the bottom of the bill. The bill will look like it's burning, but it shouldn't burn (famous last words). When the flame is completely extinguished, it's safe to touch the money... you'll find that the money is even cool to the touch.

You can also try mixing these ratios of water and alcohol depending on the kind of alcohol that is available to you...
- 50 mL of 99% isopropyl alcohol mixed with 50 mL of water
- 50 mL of 95% ethyl alcohol with 50 mL of water
- 70 mL of rubbing alcohol (usually 70%) with 30 mL of water

Alcohol burns with an almost invisible blue flame. One trick is to add a little table salt to the water-alcohol mixture to make the flame more visible.

**HOW DOES IT WORK?**
By now you've probably guessed that the money will actually burn if you dip it into a pure alcohol solution. The secret, of course, is the addition of water to the mixture. The water from the water-alcohol mixture absorbs much of the heat energy that is generated when you ignite the bill. The temperature of the paper money does not rise above the temperature required to burn the paper. The water is first heated to its boiling point and then vaporized by the heat of combustion from the burning alcohol. If you reduce the amount of water in the mixture, the paper money is likely to char or even catch fire.
BURNING MONEY

HERE IS WHAT YOU NEED

70% RUBBING ALCOHOL
WATER
TONGS
MONEY!
MEASURING UTENSILS
A LIGHTER
1

POUR 70ml OF RUBBING ALCOHOL AND 30ml OF WATER INTO A CUP

MIX IT UP
GET A $ BILL...

2

SOAK THE BILL IN YOUR WATER-ALCOHOL MIXTURE

3
Move the cup out of the way and light the bill on fire.