



## EXPERIMENT: "MONEY TO BURN"



What do you think would happen if you lit a dollar bill on fire? Would it burn if you soaked it in water first?

**HYPOTHESIS:** \_\_\_\_\_  
\_\_\_\_\_

### Materials Needed

- Dollar Bill
- Water
- Rubbing Alcohol

**ADULT SUPERVISION REQUIRED**

### Step 1



Mix one-part water and one-part rubbing alcohol in a small bowl (about ¼ cup water and ¼ cup rubbing alcohol). Stir the solution and then soak the dollar bill until it is thoroughly wet.

### Step 2



Move the bowl away from the dollar bill (we don't want it to catch on fire). Hold the dollar bill with tongs **OVER THE KITCHEN SINK**.

Now light the dollar bill with a match or lighter. Again, **MAKE SURE IT IS OVER A SINK**.

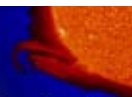
What happened?

\_\_\_\_\_  
\_\_\_\_\_

### Conclusion

The dollar bill lit on fire but then went out. Why do you think the fire went out?

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\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



## So What Happened?

### How does it work?

Alcohol is less dense (lighter) than water, and therefore it “floats” on water. The dollar bill soaks up both the water and the alcohol. The alcohol tends to migrate to the surface (floating). So when you light the dollar bill, it is only the alcohol that ignites and burns. By the time the alcohol has burned up, the only thing remaining is a water soaked dollar bill. The water extinguishes the flame. The formula for the burning alcohol looks like this:

