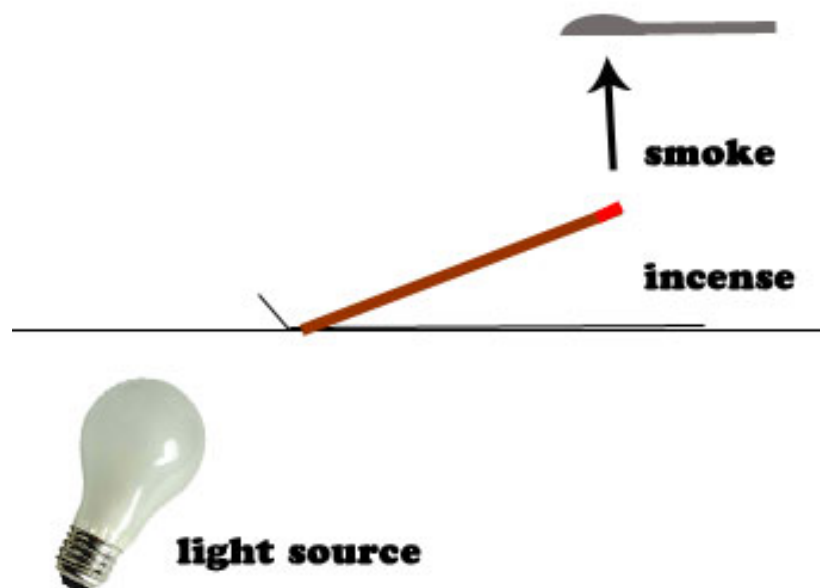


The purpose for this project was to demonstrate the flow of upward moving smoke around a curved object. Due to hectic finals schedules, it was difficult to find a time for our entire group to meet so I ended up doing this project independently. I was really interested in the flow of smoke around objects and decided to try my own rendition of it. I also tried to photograph the effects of using a knife and a fork, but the results were not nearly as interesting.

For my photo, I used an incense stand (pictured below) with some store bought incense. I waited for the air to be as still as possible before putting a spoon face down above the smoke (approximately 4 inches from the smokes source) and photographing the effects. I took around 20 pictures within a minute and from that chose the clearest one. I used the flash on my camera, as well as another halogen light above and to the lower left side.



The smoke and spoon photo was taken with a Canon EOS Digital Rebel with a EF-S 18-55mm lens. The shutter speed was $1/60^{\text{th}}$ of a second, at an aperture of f 4.5. The focal length was 34 mm and the ISO was 400. In photoshop, I removed the shadow of the spoon caused by the flash. I also touched up the background area to remove distracting shadows and dust, and upped the contrast of the image to make the smoke stand out better. The final image is 1875 x 1962 pixels.

The physics seen in this photo is abundant in the swirl of smoke on the left half of the photo, curling under the tip of the spoons curvature. Once the incense smoke hits the spoon, its course is altered and it is pushed downward. The smoke begins to rise again, and this time flows around the spoon. I love this image, and though I struggle to explain exactly what it is happening, I do think that it is very visually and intellectually stimulating and also pleasing to look at. The contrast and lighting of the image is striking. If I had the time, I would love to make a sequence shot of this. Otherwise, I'm very happy with it.