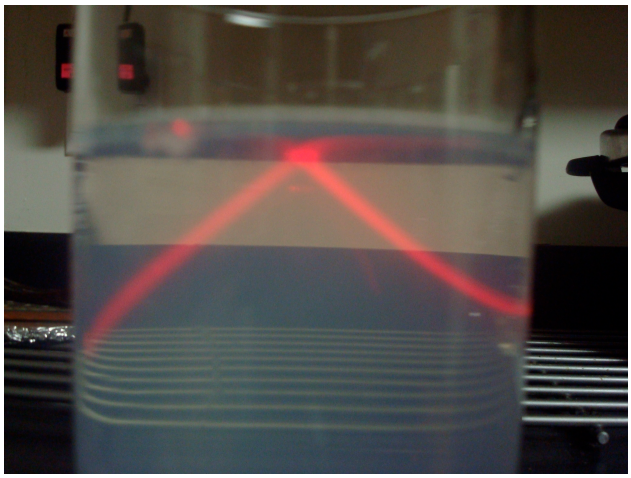
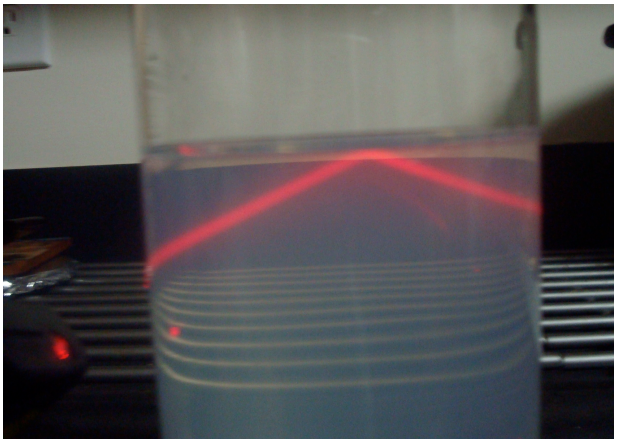
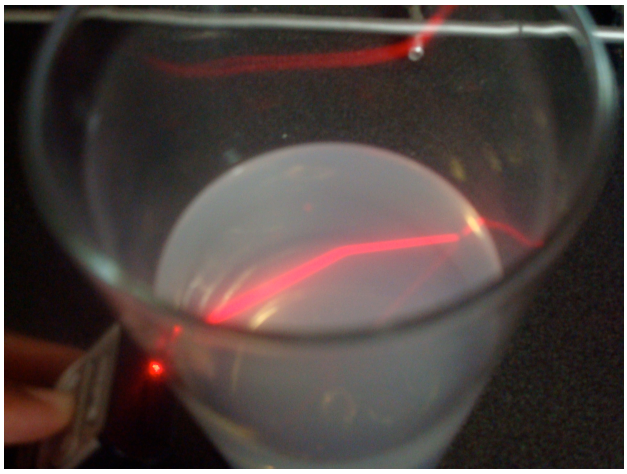
Total Internal Reflection

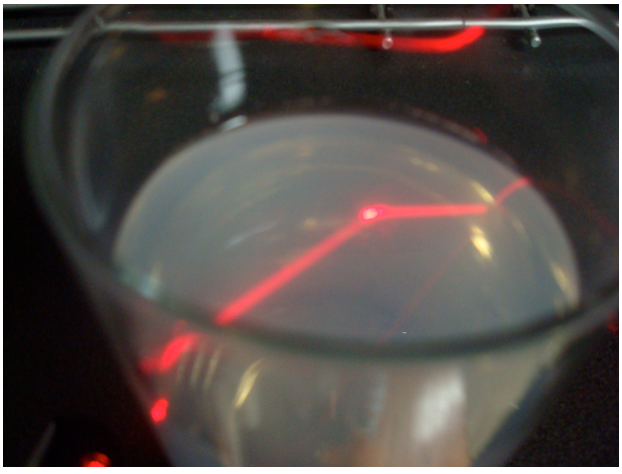
Using a laser pointer to show the bending of light. In this case, I captured images of total internal reflection with my camera. I added just a little bit of milk (less than a teaspoonful) to water so that there would be enough suspended particles to disperse the light and thus make the laser beam visible. The first two pictures, taken from the side, show total internal reflection with the water surface reflecting the light back. The laser pointer is partly visible in the second picture.





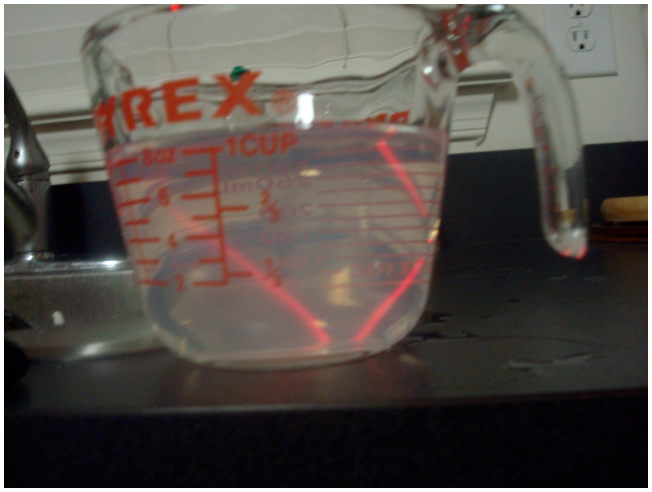
The next two pictures were taken from above the water surface.





Total Internal Reflection

I tried to get a little fancier with the next two pictures. However, I couldn't control the pointer with one hand and camera with the other when I tried to get more reflections. Notice in the first of these two, the laser beam splits into two as it reflects off the top and bottom of the glass at the bottom of the pyrex mug.



Finally, I got one of refraction -- the bending of light. A trace of smoke from a burnt out candle helped make the laser beam visible in air.