

## Critical Angle - Notes to the Future

This experiment is simple to put together and a lot of fun. We had three different examples of critical angle at our table. There was a two liter bottle that we put a hole in on one side near the bottom of the bottle where water could flow out of, we used a heated nail to make the hole. We set it on top of a bucket and let water flow down into a bowl on the table, then had another bowl to cycle it out with so we could keep refilling the bottle. There is a little spilled water with this method so we laid out towels to cover the table. We also had a skinny tank that we filled with water and put some Mop & Glow in it, both were provided by Mr. Baird. Mr. Baird can also give you these acrylic blocks and green laser pointers that you will be using throughout the experiment. It would help to bring some extra AAA batteries for the laser pointers because they don't all have batteries in them and one had died while we were using it.

The exhibit is really fun for kids and adults, it helps to have something lit up at your exhibit as people walk around because without any lasers on the whole thing looks kind of boring. The kids during the day aren't really interested in the physics and some might try to walk away with a laser pointer, you'll get more questions from the teachers and parents later in the day. It good to mention how it works with fiber optics and telephone calls, also how the special cutting of diamond relates to it.

This PhysGuide is the hardest part just read through the sheet Mr. Baird gives you and do some extra research on your own, add a few good diagrams or pictures too. Overall the experiment is fairly easy to do and a ton of fun, you'll have great time at Exploratorio. Good luck!