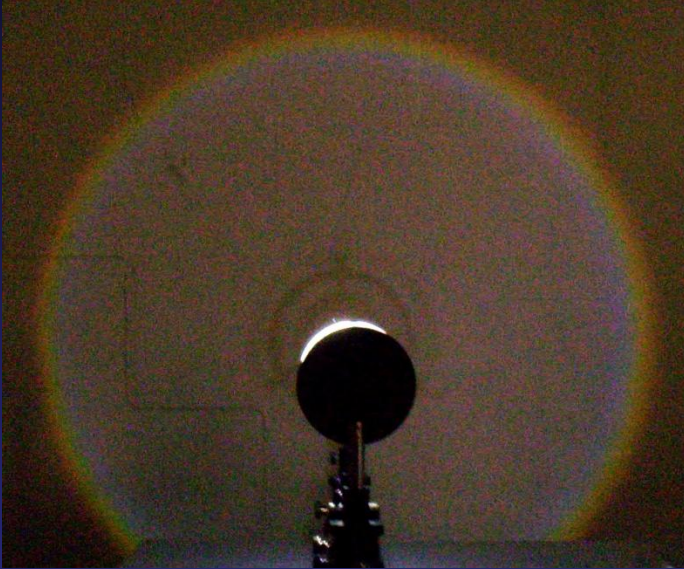


RAINBOW

What to do

Shine the light into the clear plastic sphere. Use a circular plate to block the light coming through the sphere so the reflection (rainbow) can be more easily seen



Two physical phenomena are at work within a rainbow: refraction and reflection. Refraction occurs each time light passes across a boundary from one substance to another, such as from air into water. As light crosses that boundary, the rays bend at different angles depending on the wavelength (color) of light. This is the familiar prism effect wherein "white" sunlight is broken into a spectrum of different colors from red to blue-violet.

The same thing that happens in a rainbow: white sunlight enters a raindrop and is broken into different colors heading in slightly different directions. The light is then reflected (and magnified) off the back of the raindrop and passes back into the air again, in the process being further refracted

