

Disappearing Glass Rods

You see transparent objects because they reflect and bend light.

Try this:

- Turn the knob to raise and lower the lens and the glass rods.
- Notice that all but one of the glass rods seem to vanish in the liquid.
- Also notice that the submerged lens no longer magnifies the picture.

What's going on?

The transparent rod that stays visible in the liquid is made of flint glass. Light travels at a different speed in flint glass than it does in the liquid. As the light that passes between the two materials changes speed, it bends and reflects off the flint glass—an effect that allows you to see the rod.

The rods you can't see in the liquid are made of Pyrex. Light travels at the same speed in Pyrex as it does in the liquid. As a result, light does not bend or reflect off this material.