

Convection Currents

Heated water makes patterns of turbulence that bend light.

Try this:

- Turn the Heater knob and notice the changing patterns on the white screen.
- Gently pull the string on the left side of the tank to stir the water and disrupt the currents.
- You can slide the light towards or away from the tank to make the image larger or smaller.

What's going on?

The warmer, lighter water rises in streams called *convection currents*. These currents would be invisible if it weren't for the fact that light bends when it passes between substances with different densities. The swirling hot and cool water bends the light passing through it into swirling patterns of light and dark.