

Bending Light Experiment

If your science savy third grader is up for a challenge, introduce her to refraction. Refraction is a fancy science word for bending light, but you won't need any fancy supplies for this activity. Using just a couple of household items, your scientist will be bending light like a pro!

What You Need:

- Opaque casserole dish
- Small stone
- Pitcher of water
- Glass cup
- Spoon



What You Do:

1. Have your child place the stone at the bottom of the casserole dish.
2. Ask her to take a comfortable seat at the table – she will have to hold her position for several minutes. Have her pull the casserole dish towards herself so that she can see the stone. Now have her push the dish away, stopping when the stone is just out of sight.
3. Explain to her that she cannot see the stone because there is not a straight line between her eyes and the stone. Instead, you are going to make the stone reappear by bending the light.
4. Slowly pour water into the dish. Be careful not to shift the stone. Ask her to tell you when she can see part of the stone.
5. Because light is refracted as it travels from the air to the water, she should be able to see the stone. Water has a different density than air. The light beams bend and the stone is visible as if she was looking around a corner.
6. Expand on this by showing her another example of refraction. Take a plain glass and place a spoon handle inside of it. Pour water into the glass and the handle of the spoon will seem to change positions.
7. Encourage your child to try out other bending light experiments. Anything with water will do the trick!