Refraction

A light ray travels in a straight line, but it can **bend** when it changes speed. When a light ray enters a denser medium such as water, it slows down. This results in a "bent" or distorted image.



Put a pencil or straw in a cup of water. Kneel down to the level of the cup and look at the pencil or straw through the water. You will notice that the pencil looks like it is bent!





The pencil appears bent due to a property of light called **refraction**. The distortion happens because the light ray slows down and changes direction as it passes into the water, which is denser than air.

Try positioning the pencil or straw at different angles. What do you notice? Is there a point at which the distortion is lessened? Note your observations on the back of this page.