

### Answer on Question #44575 – Physics – Optics

if a light ray enters a material like lens what do you think will happen to the ray?

#### **Solution:**

The ray will be refracted. Refraction occurs when a ray of light passes from one transparent medium (air, let's say) to a second transparent medium (lens). When this happens, light changes speed and the light ray bends, either toward or away from what we call the normal line, an imaginary straight line that runs perpendicular to the surface of the object. The amount of bending, or angle of refraction, of the light wave depends on how much the material slows down the light.

A lens is a piece of glass or other transparent substance with curved sides for concentrating or dispersing light rays. Lenses serve to refract light at each boundary. As a ray of light enters the transparent material, it is refracted. As the same ray exits, it's refracted again. The net effect of the refraction at these two boundaries is that the light ray has changed directions.

