

## Jello Optics

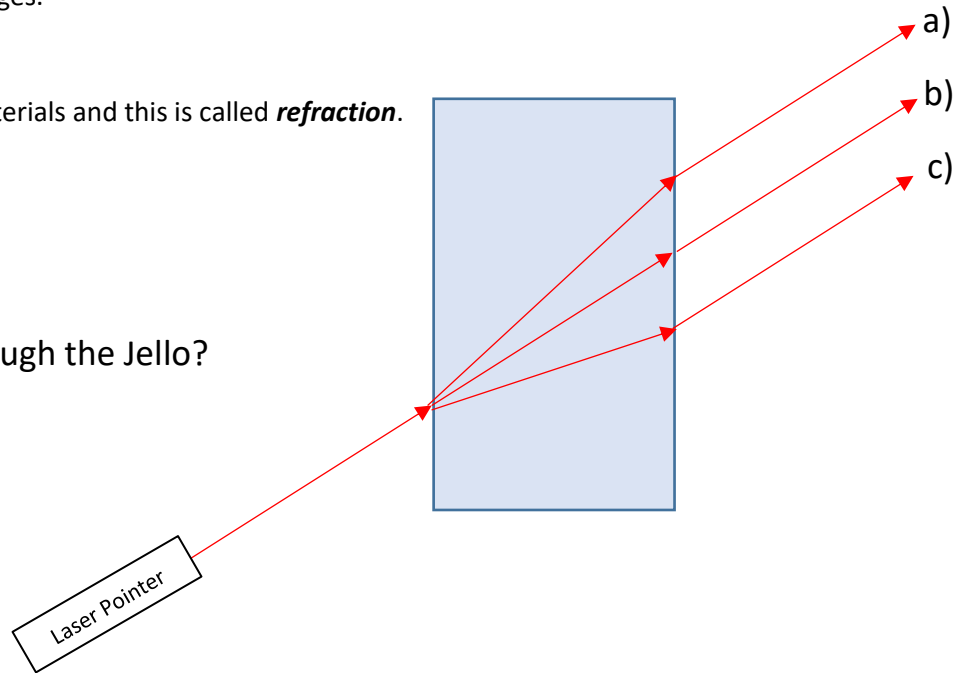
Electrical engineers do a lot more than just build circuits. Optics is the science of bending and focusing light, which allows us to send signals and create images.

### Refraction

Light bends when it enters different materials and this is called *refraction*.

Cut a rectangular piece of jello.

Which path does light take through the Jello?  
(circle a, b, or c in picture on right)



### Lenses

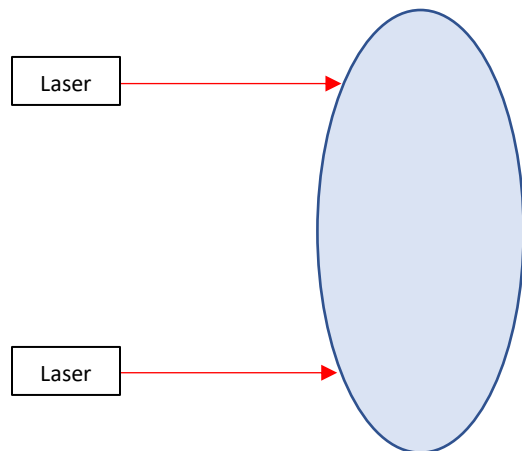
Refraction allows us to create *lenses*, which can focus light to a point and create images.

Cut a convex and a concave lens. The pictures below show how they are shaped when you look from above.

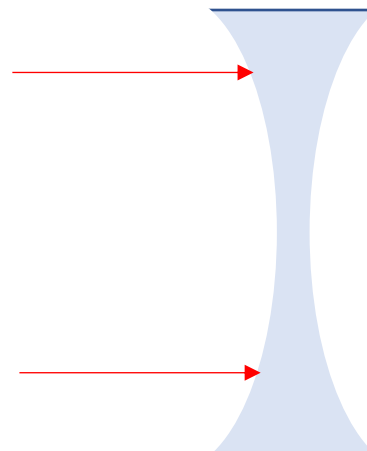
Point two lasers shining parallel at the lens (like train tracks).

What happens to the light after the lens? **Draw** how light bends on the pictures below.

Convex Lens



Concave Lens



In your own words, how would you describe what the convex lens does?