Notes: Refraction

- Light bends when it moves into different _____
- Light bends because the _____changes
- The angle of refraction is the angle between the _____ of light and the _____
- _____: light that comes into contact with a new medium, either reflection off the surface or refracting through the surface
- _____: the measure of the angle of the incident ray to the normal
- _____: the light is casted back or through the medium
- _____: the measure of the angle of the refracted ray from the normal
- _____is the bending of light when it _____ from one medium to another. Light _____ because it _____ _____when it moves between materials that have different densities.
  - Example…from air to water
  - The actual position is not the
  - same as how the position appears.
- When light passes from one medium into a _____ one the light _____ the normal. (ex: air to water)
- When light passes from one medium into a less dense medium the light _____ from the normal. (ex: water to air)

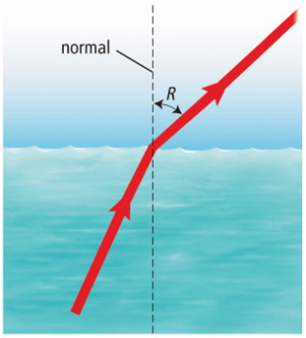


Figure 5.11B When light rays travel from water to air, they speed up and bend away from normal.

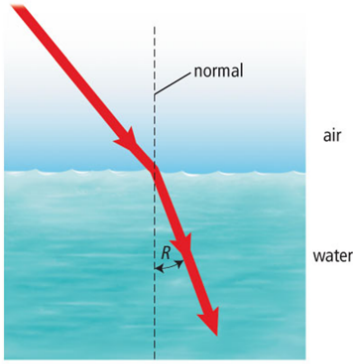
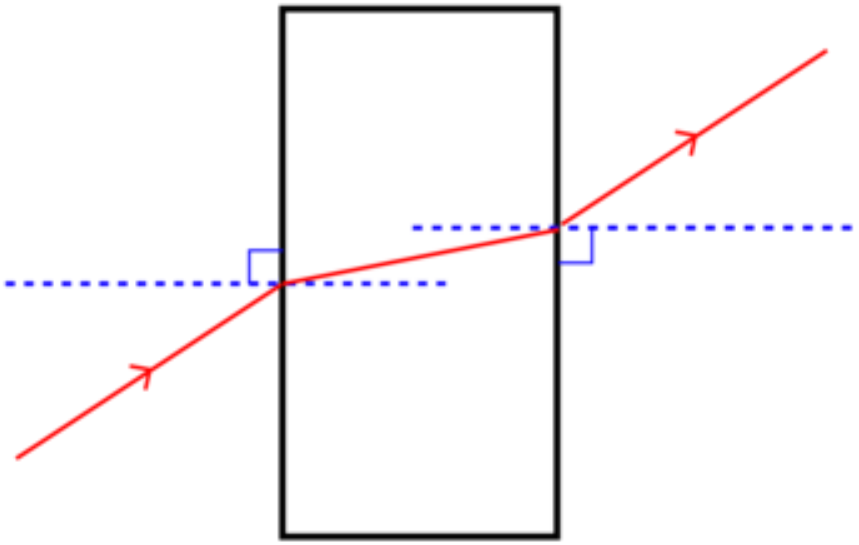


Figure 5.11A When light rays travel from air to water, they slow down and bend toward normal. *R* is the angle of refraction.

Type of behavior	Action at surface	Nature of surface	Other actions	Why? Because… it
Absorption	Changes into a different type of energy			
Reflection	Bounces off the surface at the same angle			
Refraction	Travels through the surface in a new direction			



Label: incident ray, angle of incidence, normal, refracted ray, angle of refraction and give examples of the mediums that would cause this type of refraction.