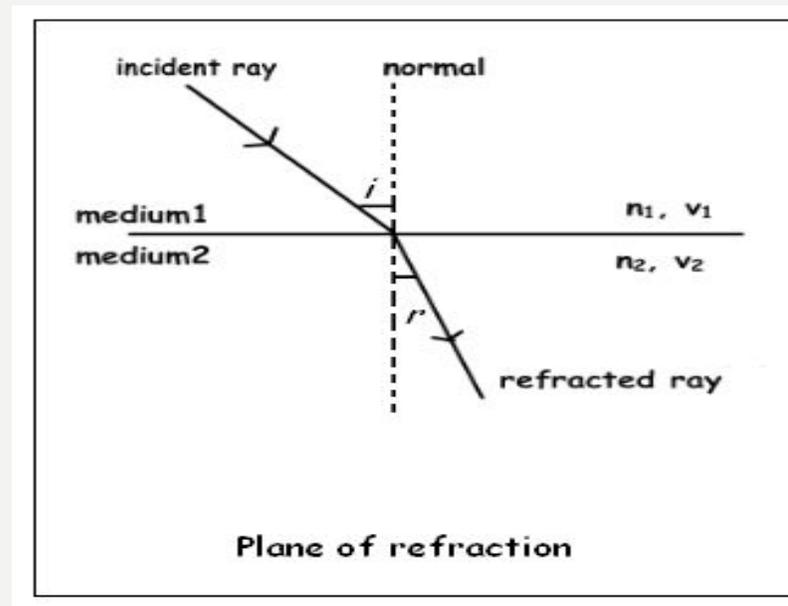
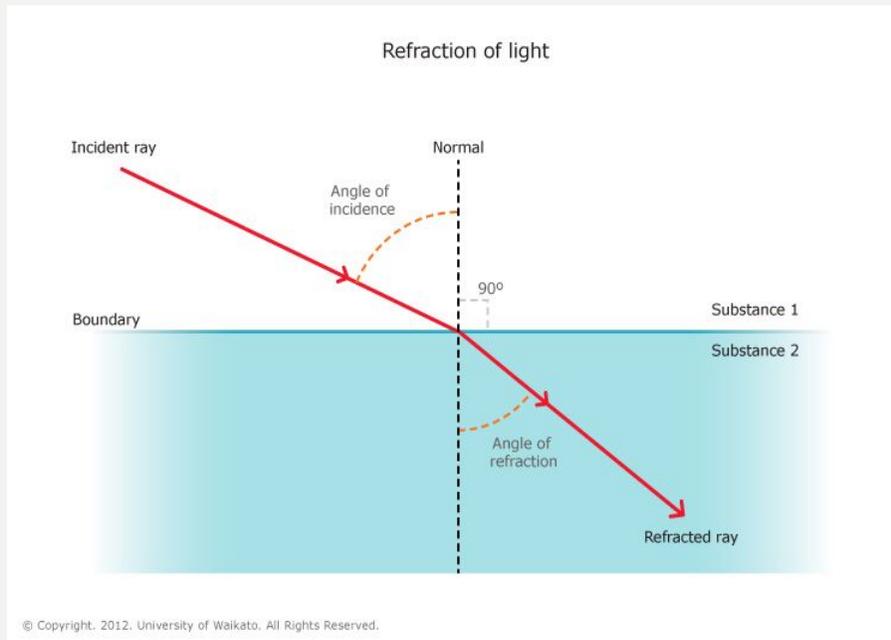


REFRACTION OF LIGHT



REFRACTION OF LIGHT IS DEFINED AS THE BENDING LIGHT. WHEN LIGHT PASSES FROM ONE MEDIUM INTO ANOTHER, IT CHANGES DIRECTION. SO, WHY DOES LIGHT BEND?

LIGHT TRAVELS WITH DIFFERENT SPEEDS IN DIFFERENT MEDIUMS. ITS SPEED IS 300000KM/S IN AIR, 225000KM/S IN WATER AND 200000 IN GLASS. THEREFORE, WHEN IT PASSES FROM AIR INTO WATER IT SLOWS DOWN.



Laws of Refraction:

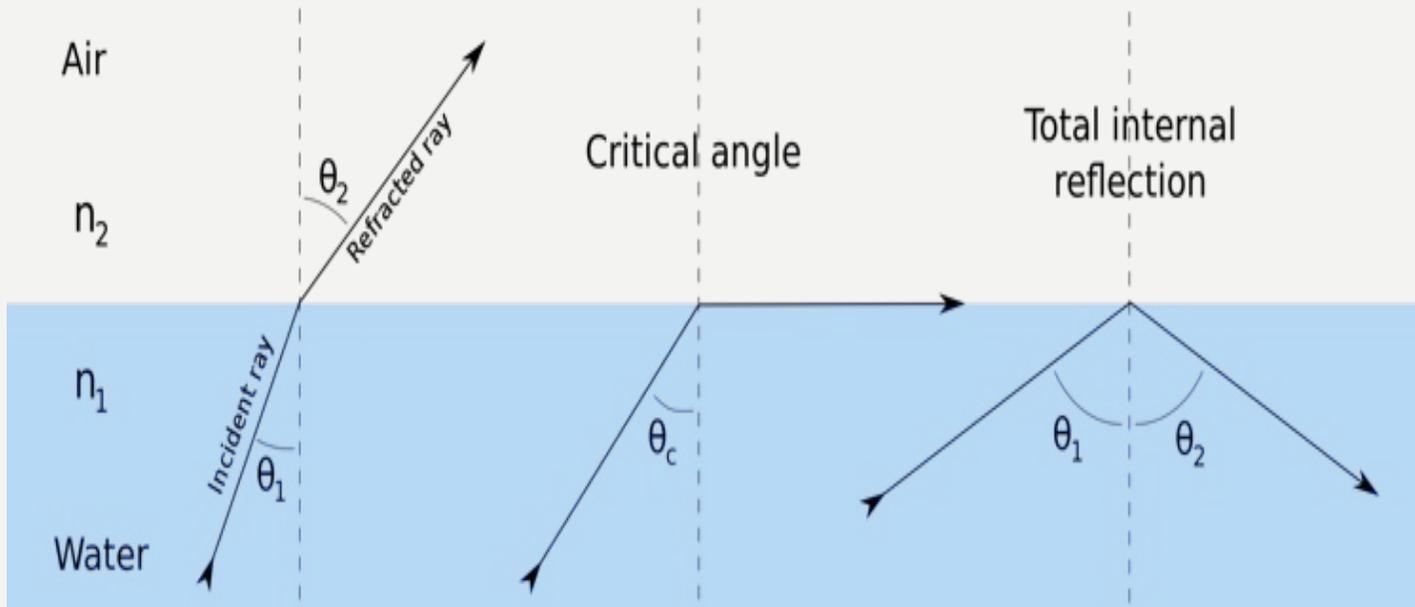
- The incident light, the reflected light and the normal are all in the same plane.
- Light passing from an optically less dense medium into a denser medium bends *towards* the normal.
- Light passing from an optically denser medium into a less dense medium bends away from the normal.
- The angle of incidence is the angle between incident Ray and the normal. The angle of refraction is the angle between refracted Ray and the normal.

**BUT REMEMBER THAT:
IF A LIGHT RAY IS
EXACTLY
PERPENDICULAR TO
THE SURFACE IT DOES
NOT BEND.**

Misconceptions about light include the nature of light, the speed at which light travels, the behavior of light, image formation, and color. In keeping with our focus on the albedo effect, we focus on the reflection and absorption of light as well as the light from the sun.

Misconceptions
caused by
the
refraction
of light 

IF A LIGHT INCIDENT AT AN ANGLE GREATER THAN THE CRITICAL ANGLE, LIGHT CANNOT PASS INTO THE OTHER MEDIUM AND IS REFLECTED BACK. And it is called total internal reflection



WHAT IS THE TOTAL REFLECTION?

You know that, when light passes from an optically less dense medium, it bends away from the normal. But for a certain angle of incidence, light cannot pass into the optically less dense medium instead it travels along the surface after it is refracted. When the angle of refraction is 90° the angle of incidence is called **CRITICAL ANGLE**. It is represented by _