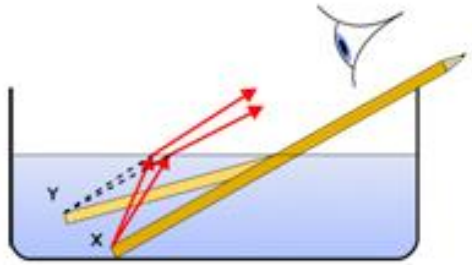
Why does a pencil submerged in appears bent?

Answer:
This effect occurs in a consequence of a refractive of a ray of light on water and air boundary
Refraction is the change in direction of a wave (light wave) due to a change in its medium. It is essentially a surface phenomenon.
An object (in this case a pencil) part immersed in water looks bent due to refraction: the light waves from X change direction and so seem to originate at Y.



Refraction of light at the interface between two media of different refractive indices, with $n_2 > n_1$. Since the phase velocity is lower in the second medium ($v_2 < v_1$), the angle of refraction θ_2 is less than the angle of incidence θ_1; that is, the ray in the higher-index medium is closer to the normal.