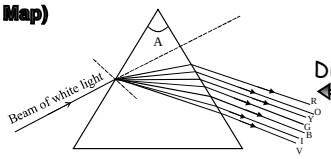
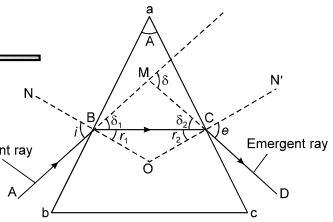
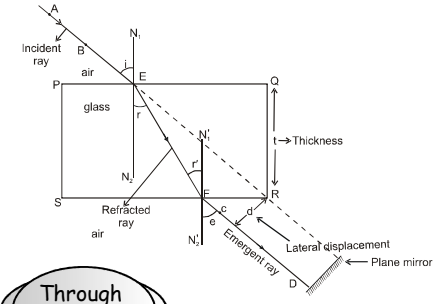
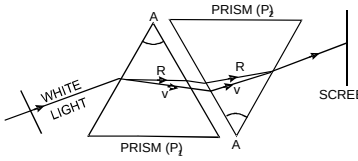
Class-X(Cancept Map)



Dispersion







Recombination

Through prism

Through glass slab

Twinkling of stars

•Planets are much closer to earth
•Planets are a collection of large number of point sized source of light
•total variation in the amount of light entering our eye average to zero

$_1\exists_2$ is refractive index of med.2 wrt medium 1

$_1\exists_2 = \frac{v_1}{v_2} = \frac{\%_1}{\%_2} = \frac{\exists_2}{\exists_1}$

$_1\exists_2 = \frac{\text{Real depth}}{\text{Apparent depth}}$

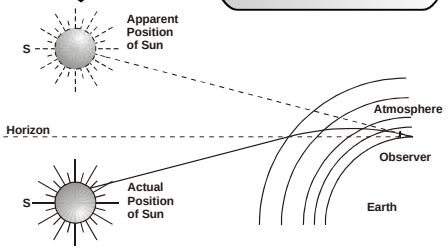
- $\frac{\sin i}{\sin r} = {}_1\exists_2$
- incident, refracted ray & normall lie in same plane

Laws of refraction

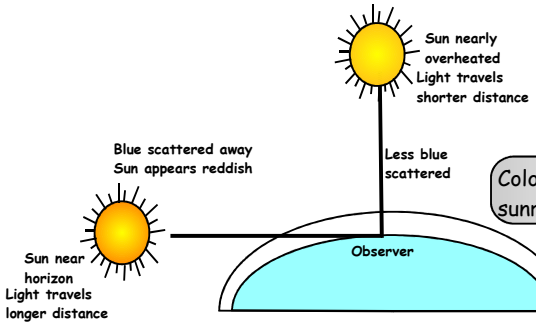
REFRACTION

Through atmosphere

Colour



Scattering of light



Colour of sun at sunrise & sunset

Blue colour of sky
The fine particles in air reflect blue colour

Hence for an astronaut outside atmosphere sky appears dark instead of blue

Tyndall effect

Dispersion of light due to particles in the atmosphere