

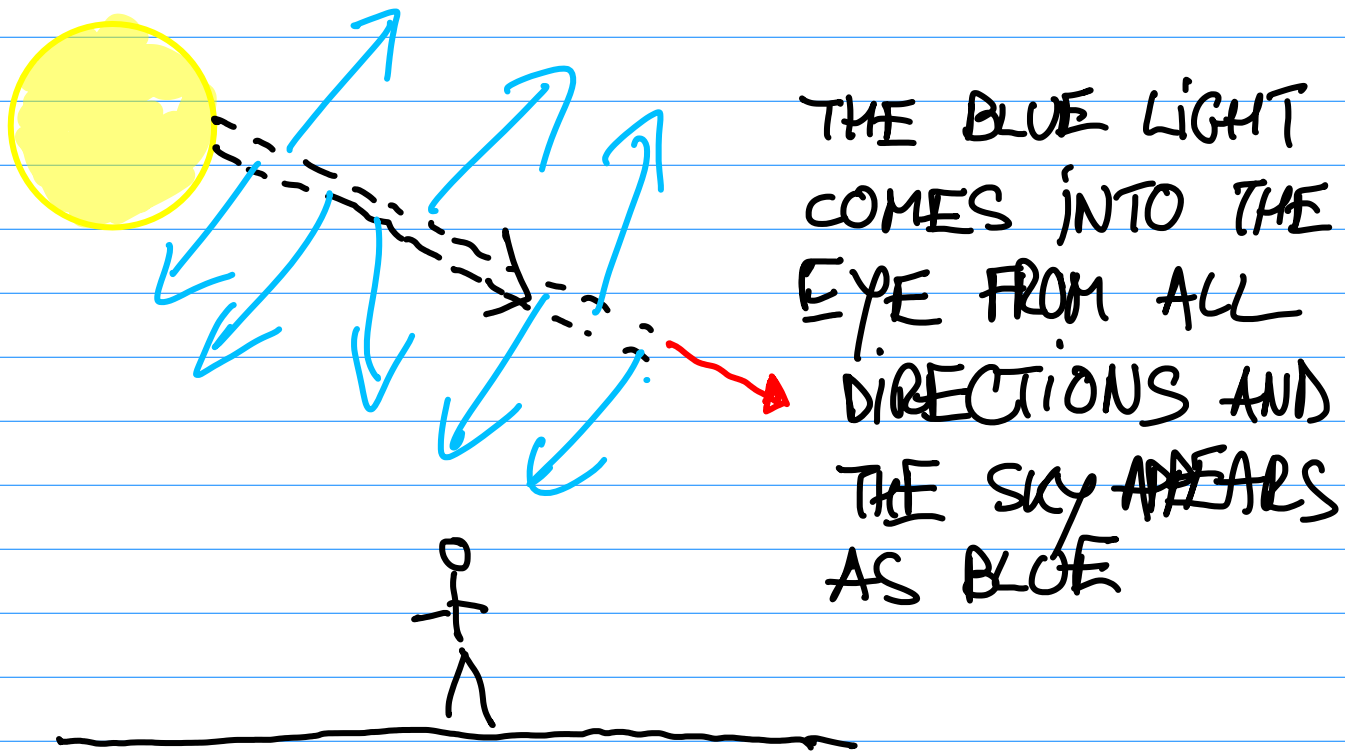
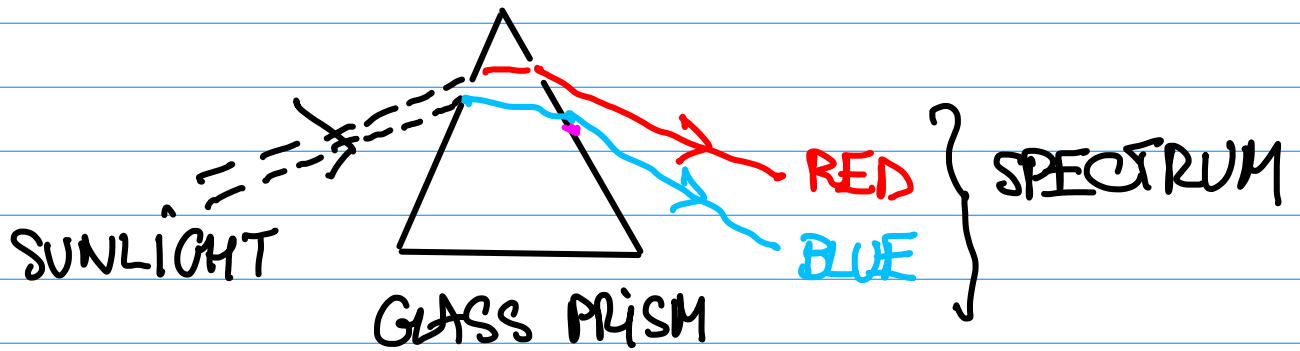
THERE ARE THREE BASIC TYPES OF NEBULAE :

1)

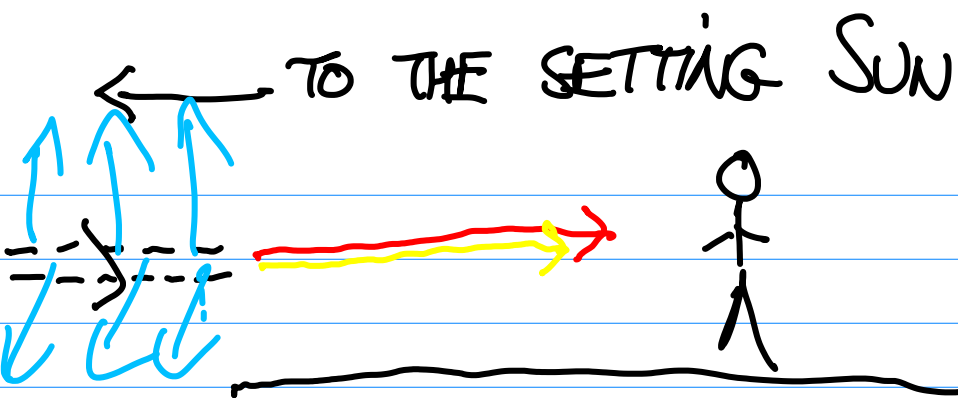


REFLECTION NEBULA (BLUISH IN COLOUR)
IT IS BLUE FOR THE SAME REASON THAT

THE SKY APPEARS BLUE ON A CLEAR SUNNY DAY: THE DUST PARTICLES SCATTER BLUE LIGHT MORE EFFICIENTLY THAN THE LONGER WAVELENGTHS (E.G. RED LIGHT)

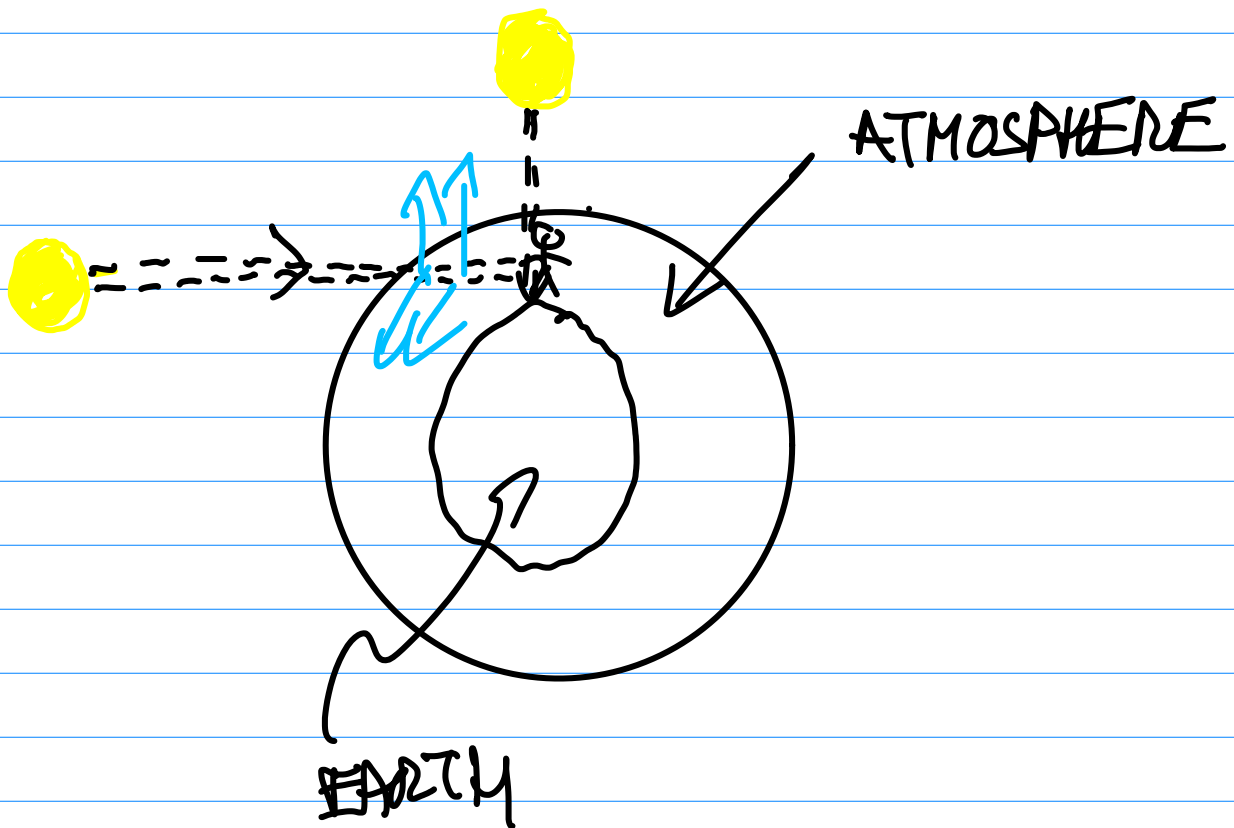


SUNSETS (AND SUNRISSES) ARE RED FOR THE SAME REASON

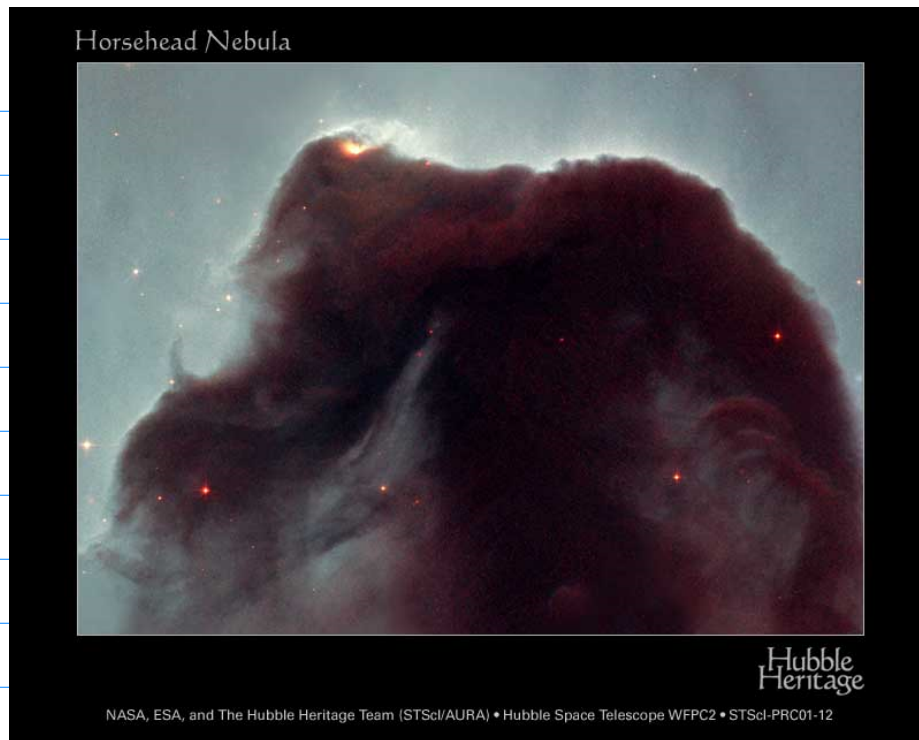


THE BLUE LIGHT IS SCATTERED OUT BY THE TIME IT REACHES THE EYE AND ONLY

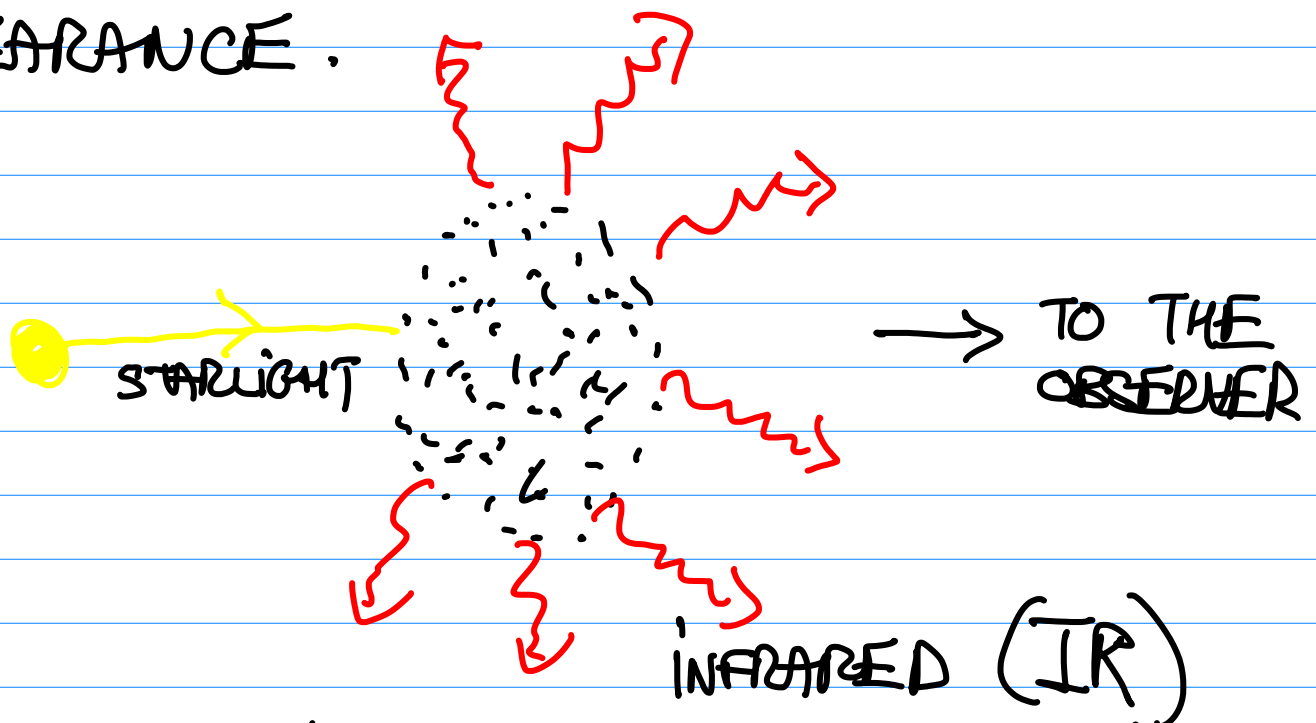
THE LONGER WAVELENGTHS (RED & YELLOW) SURVIVE THE TRIP.



2) DARK NEBULAE



THE DUST PARTICLES IN THE NEBULA BLOCK THE STARLIGHT OF THE STARS BEHIND THE NEBULA GIVING THEM THE DARK APPEARANCE.



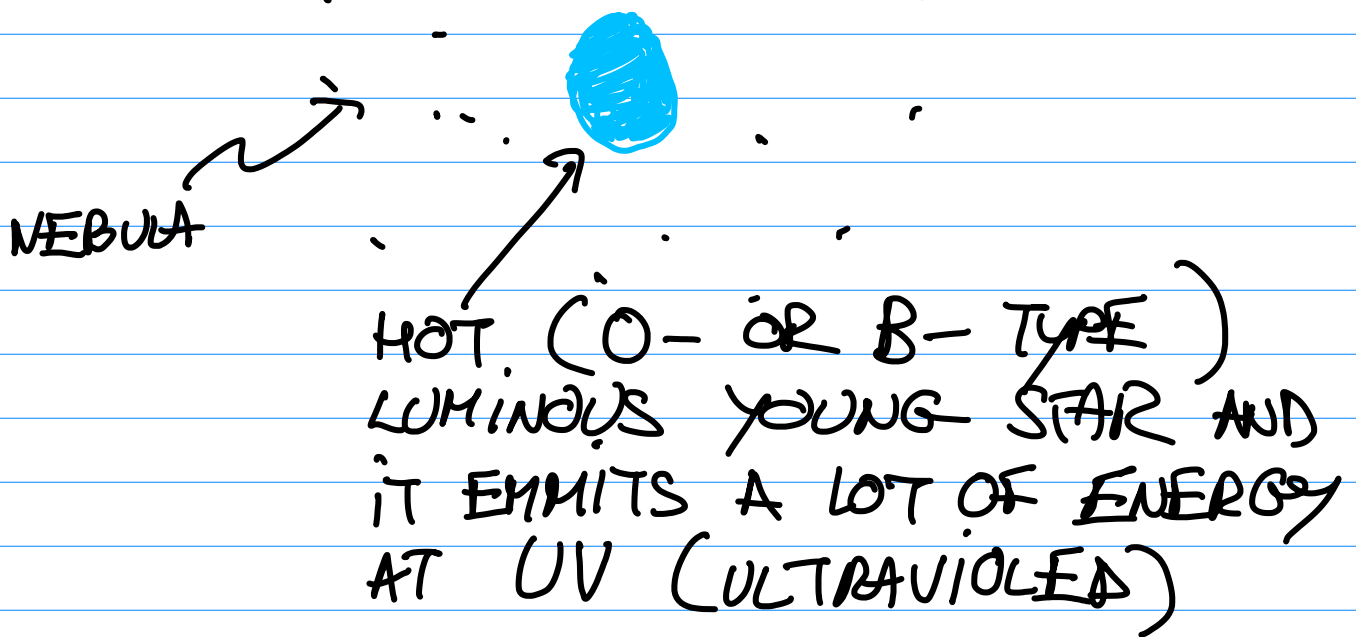
THE DUST PARTICLES ABSORB THE STARLIGHT AND THE ABSORBED ENERGY IS REEMITTED

IN IR. THUS, THE DARK NEBULA COULD BE OBSERVED IN IR (USING DETECTORS)

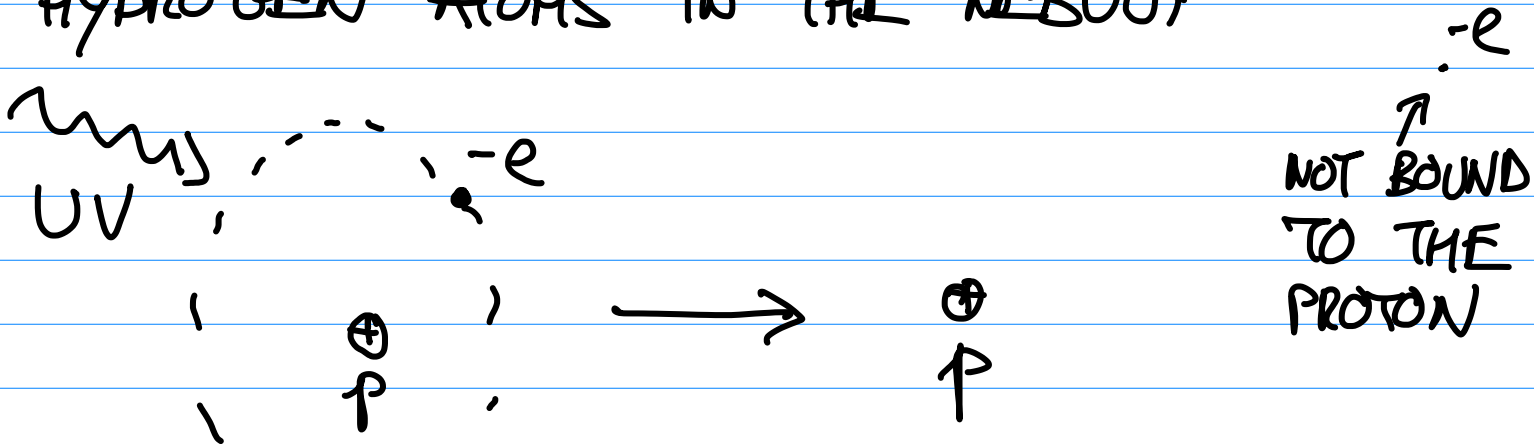


3) EMISSION NEBULA (REDDISH IN COLOUR)





HIGH ENERGY UV PHOTONS IONIZE
HYDROGEN ATOMS IN THE NEBULA



PROTON AND ELECTRON THEN RECOMBINE
WITH THE ELECTRON IN HIGHER ENERGY
STATE. THE ELECTRON WILL DROP TO THE
LOWER ENERGY LEVELS WITH EMISSION
OF PHOTONS (FLUORESCENCE). THE ATMOSPHERE

PASSES THROUGH THE RED HYDROGEN
SPECTRAL LINES GIVING THE NEBULA
REDDISH COLOUR.