

## 2a [14-16] – Prisms

### General Resource Sheet

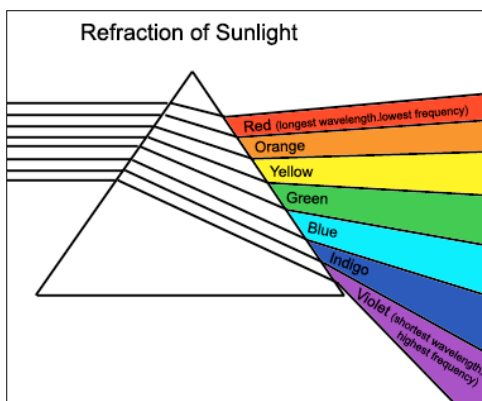
### Prisms

When white light (a mixture of all visible light wavelengths) strikes a prism the white light is split into its constituent colours producing a rainbow effect:



So what is happening? White light is

composed of a number of different wavelengths, and thus colours, of light. When



light enters a different medium than air the light is bent or refracted (see the image of the

stick in water opposite). As the different wavelengths travel through the prism the different colours are bent by different amounts and produce the spectrum



of colours. Isaac Newton first thought that prisms split colours

out of colourless light. Newton placed a second prism such that a separated colour would pass through it and found the colour unchanged. He concluded that prisms

separate colours. He also used a lens and a second prism to recombine the rainbow into white light.



The same effect, in the right conditions, produces rainbows!