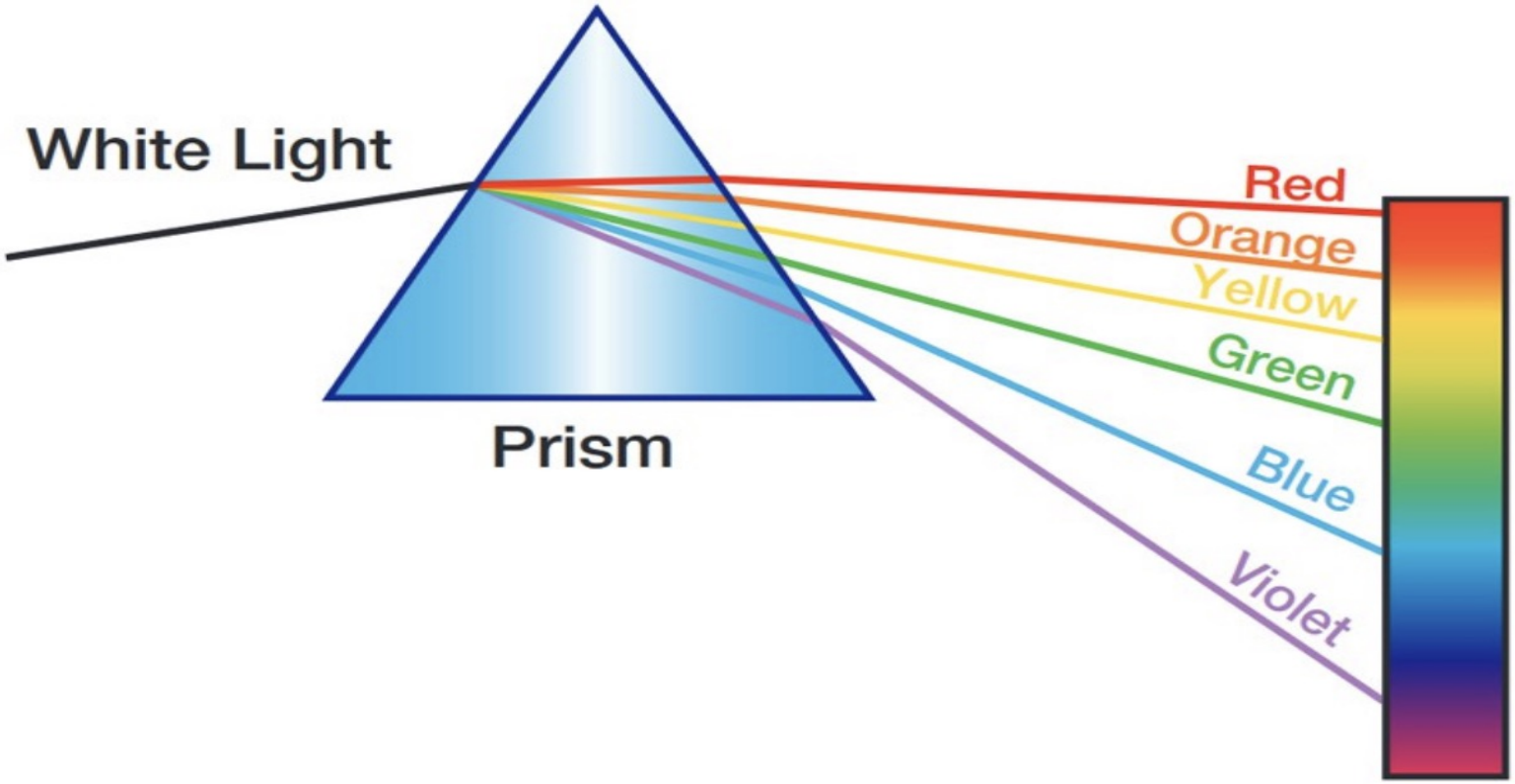
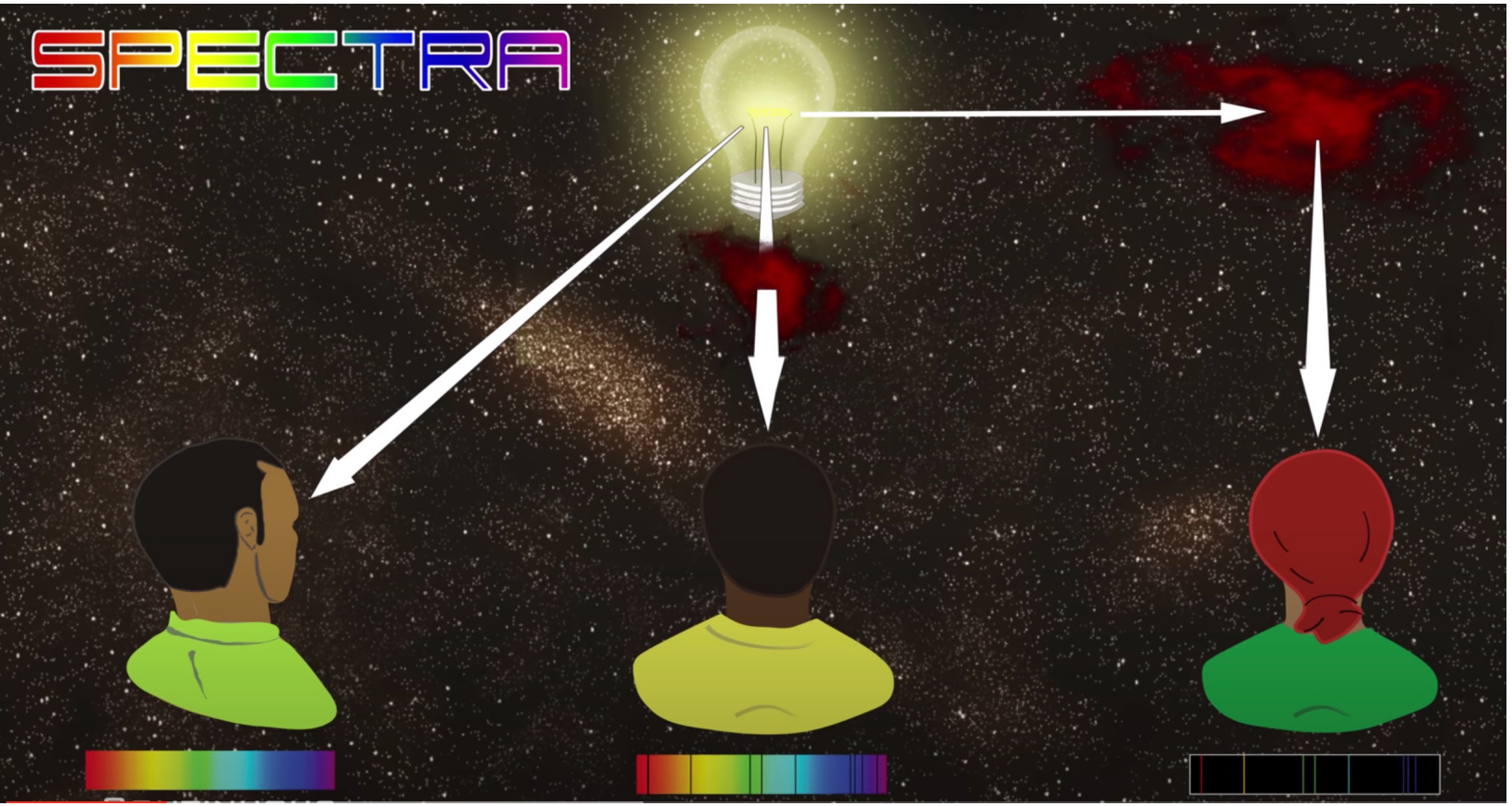
Light Spectrum



Credit: NASA Space Place



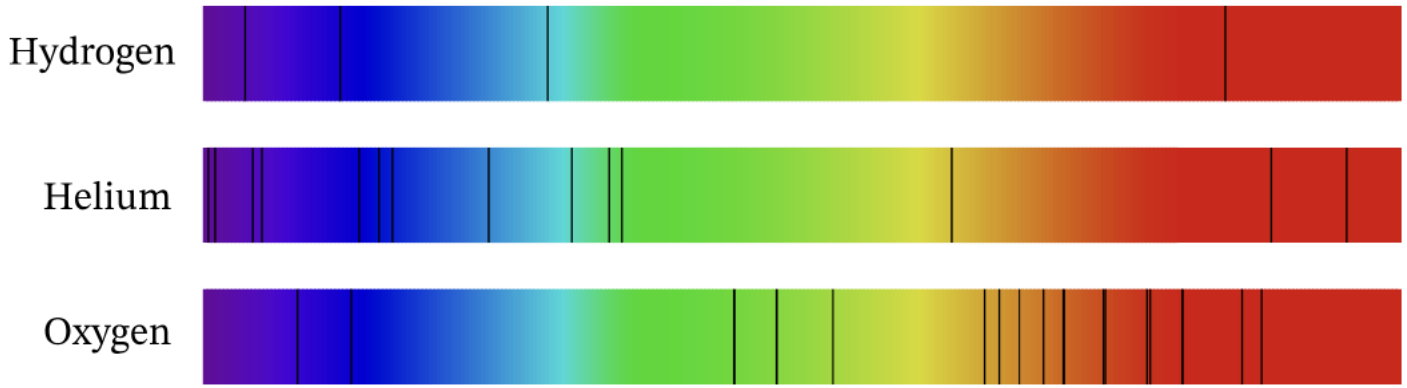
Continuous

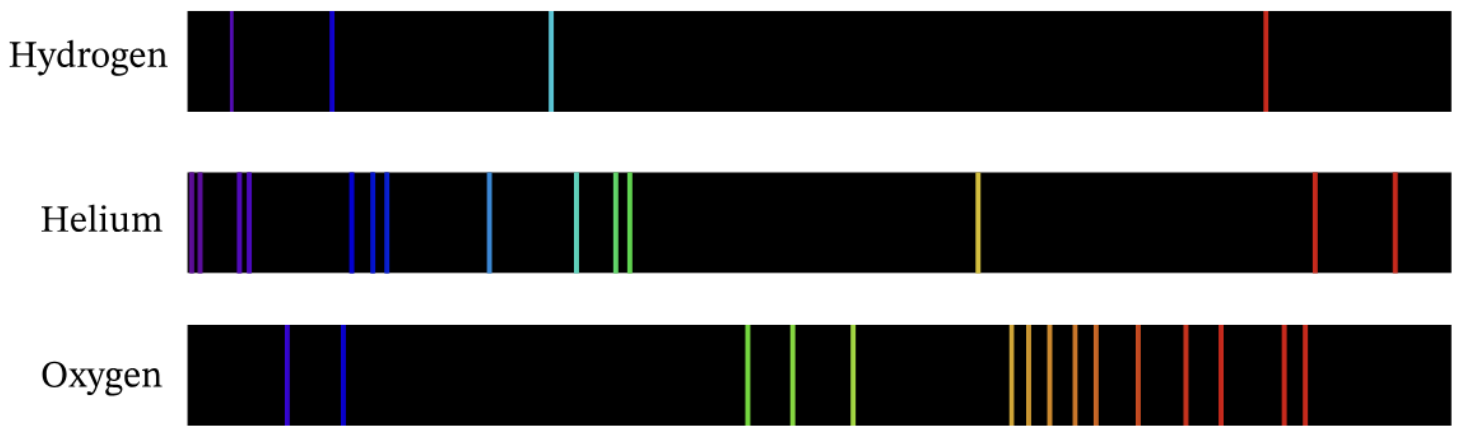
Absorption

Foucault, the French physicist, observed in 1848 that a flame containing sodium would absorb the yellow light emitted by a strong arc placed behind it. This was the first demonstration of a laboratory absorption spectrum. These facts were brought together in 1859 by G.

Emission

In 1756 Thomas Melvill observed the emission of distinct patterns of colour when salts were added to alcohol flames.[2] By 1785 James Gregory discovered the principles of diffraction grating and American astronomer David Rittenhouse made the first engineered diffraction grating.[3][4] In 1821 Joseph von Fraunhofer solidified this significant experimental leap of replacing a prism as the source of wavelength dispersion improving the spectral resolution and allowing for the dispersed wavelengths to be quantified.[5]


Hydrogen
Helium
Oxygen


Hydrogen
Helium
Oxygen

Continuous Radiation