

# Doppler effect with light waves

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- If an observer is looking at a star which is emitting light,
- If the star recedes away (moves away) from the observer, the  $f_o$  (of light waves) will be less than the actual freq. of light emitted by the star.  
Since lower freq. of light is towards the "RED END" of the spectrum hence this effect is known as "Red Shift".
- Reverse :: Star is moving Towards the observer;  
 $f_o >$  actual freq. of light emitted by the star.  
Since higher frequencies are closer towards the "VIOLET/BLUE END" of the Spectrum hence this effect is known as "Blue Shift".