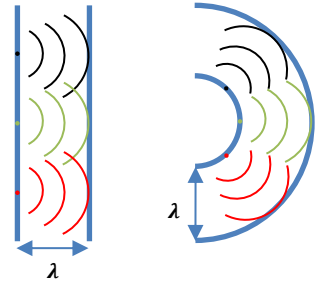
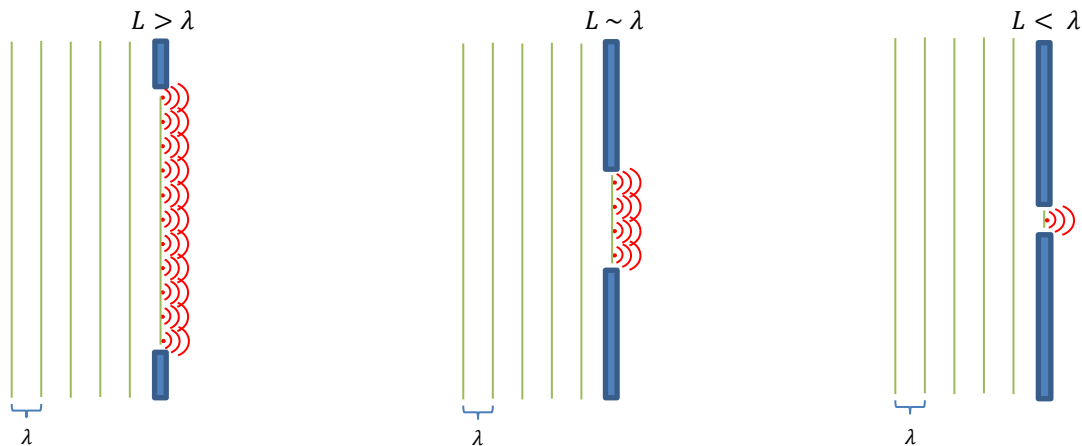


CONCEPT: DIFFRACTION WITH HUYGENS' PRINCIPLE

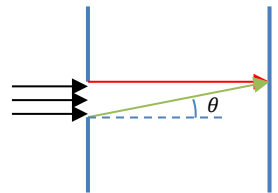
- Remember! Huygens' Principle dictates how new wave fronts are going to be produced:
 - 1) An old wave front produces spherical wavelets
 - 2) The new wave front is the tangent line across the apexes of the wavelets



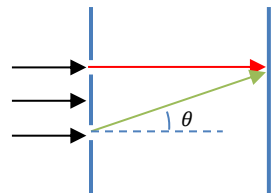
- For DIFFRACTION, the smaller the slit, the fewer wavelets are allowed through:



- In reality, you can never make the slit so small that you achieve a SINGLE wavelet produced
 - There will always be multiple wavelets produced in the slit
 - Light will come out of two different parts of the slit at DIFFERENT angles
 - The light will _____ with itself



- If two slits are separated by $d \gg L$ you CAN consider a ray from each slit at a single angle
 - Each light ray will _____ with each other



- Both the single slit and the double slit produce distinct _____

