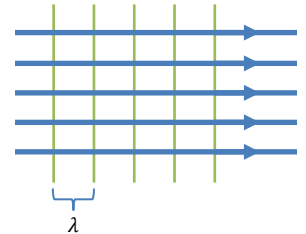


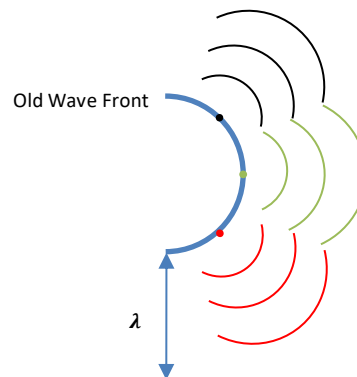
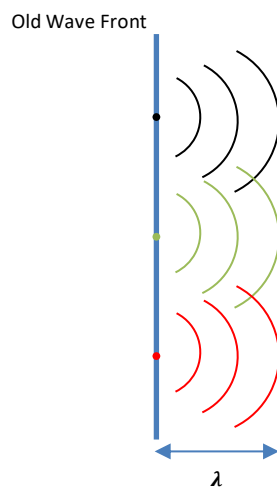
CONCEPT: RAY NATURE OF LIGHT

- Light is an electromagnetic wave → They have **wave fronts** which describe points of maximum electric field
- It is convenient to describe light as rays – lines that point PERPENDICULAR to the fronts
- Light will always travel in a straight line when in a single medium (air, vacuum, water, etc)
 - When light is disturbed, interesting things happen: refraction and diffraction



- HUYGEN'S PRINCIPLE states:

- 1) All points on a wave front act as point sources for spherical wavelets
- 2) New wave fronts are formed by the tangent line across the apex of wavelets produced by last front



EXAMPLE: Explain light reflecting off a mirror using Huygen's principle

