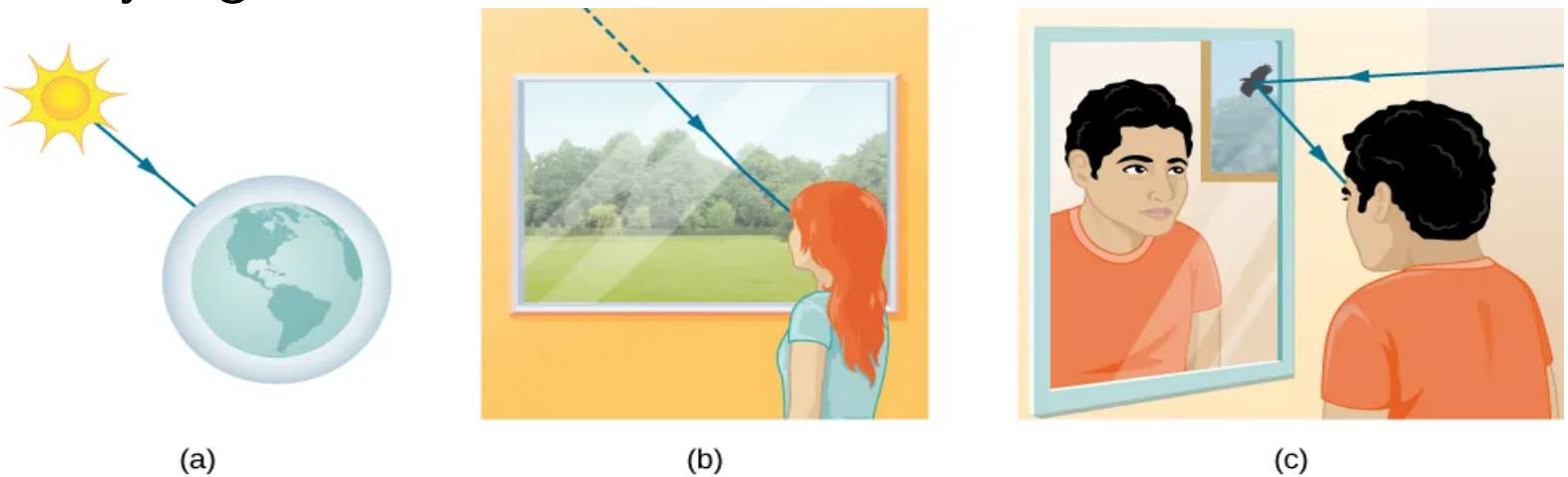
Test

Lenses

Ray Model of Light

3 ways light can travel from a source to another location



(a) (b) (c)

a directly from source through vaccum . Sun to Earth

b light can travel through various media like Air, glass, water to the observer

c light can also arrive after being reflected such as mirrors

Ray of Light

We model path of light as a straight line called ray

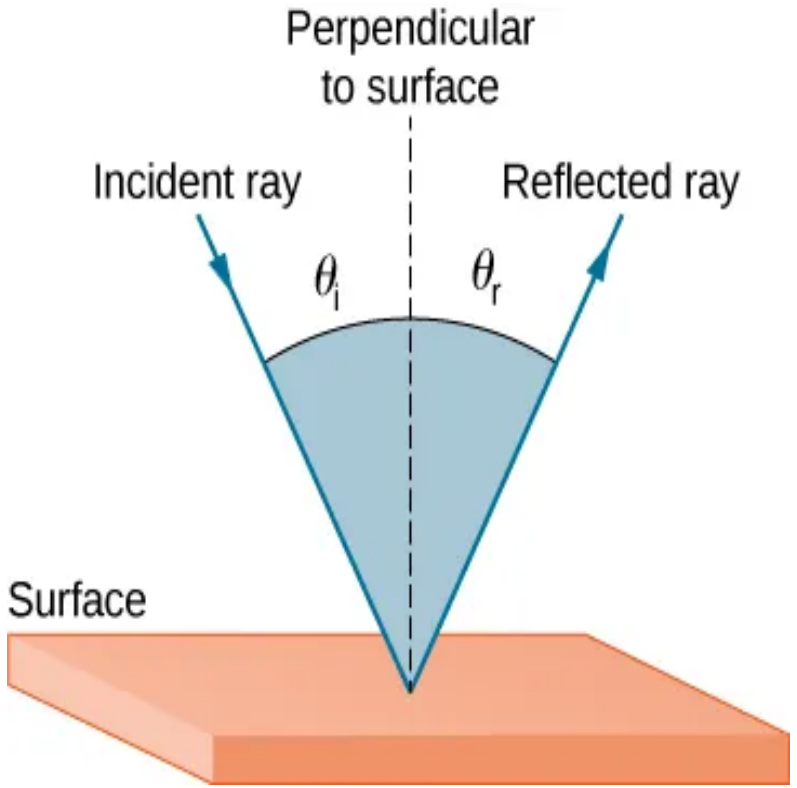
- Light behaves both as a particle and a wave
- When light interacts with an object several times larger than its wavelength($\approx 10^{-6}$), it travels in a straight line and acts like a ray.
- Light may change direction when it
  - reflection : encounters objects (such as a mirror)
  - refraction: passing from one material to another (such as in passing from air to glass)

Law of Reflection

Law of Reflection

the law states that agle of reflection is equal to angle of incidence

$$\theta_r = \theta_i$$



Reflections

Reflections

Reflections

1. Specular Reflection

Reflections

1. Specular Reflection
2. Diffused Reflection