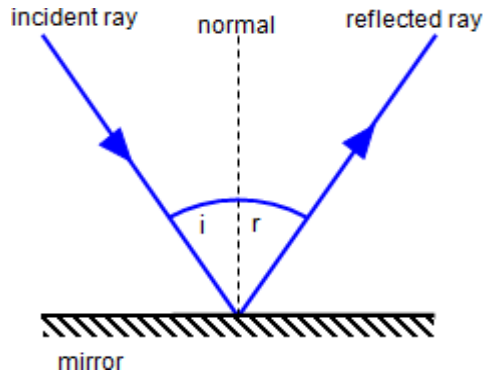


REFLECTION OF LIGHT – PLANE MIRRORS

Terms related to reflection :



Incident ray-the light ray striking the reflecting surface

Point of incidence- the point at which incident ray strikes the reflecting surface

Reflected ray- the light ray obtained after reflection from the surface, in the same medium of incident ray.

i – angle of incidence – angle the incident ray makes with normal.

r- angle of reflection - angle the reflected ray makes with normal.

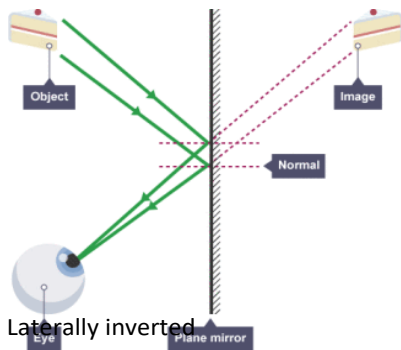
Normal- the perpendicular drawn to the surface at the point of incidence

Laws of Reflection :

1. Angle of incidence = Angle of reflection
2. Incident ray, reflected ray and normal, lie in the same plane.

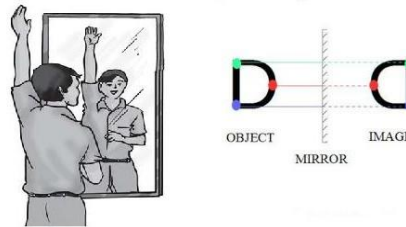
Characteristics of image formed by plane mirrors :

- Erect
- Virtual
- Same size as the object
- Laterally inverted



Lateral inversion

The interchange of the left and right sides in the image of an object in a plane mirror is called the lateral inversion.



Image

formed due to reflection or refraction

image is seen when light coming from the object after reflection enters the observer's eye

image gives more details like, color, structure etc about the

Shadow

formed when light falls on opaque body

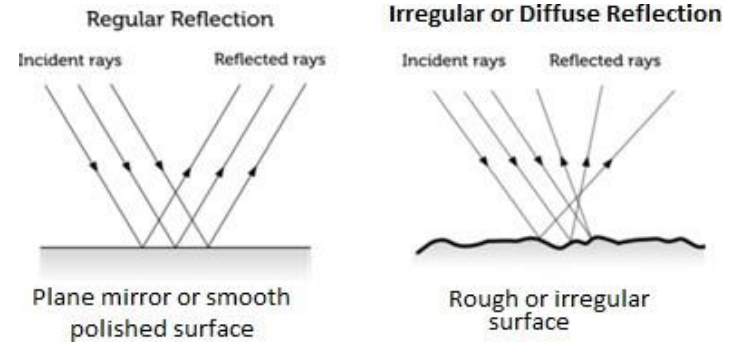
no light enters the eye from the shadow of the object

does not provide any details about the object. It gives idea only about the shape

Reflection :

The return of light into the same medium after striking a surface is called reflection.

Kinds of Reflection :



Both Regular and Irregular reflections OBEYS Laws of reflection

Real Image

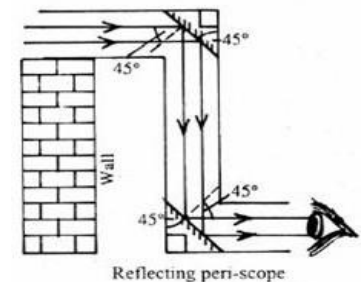
formed due to intersection of reflected rays
can be obtained on a screen
always inverted

Virtual Image

formed when reflected rays meet if they are produced backwards
cannot be obtained on a screen
always erect

Uses of Plane mirror :

1. Looking glass
2. Periscope :



3. Kaleidoscope
to see above the heads of crowd.
by soldiers in trench warfare.