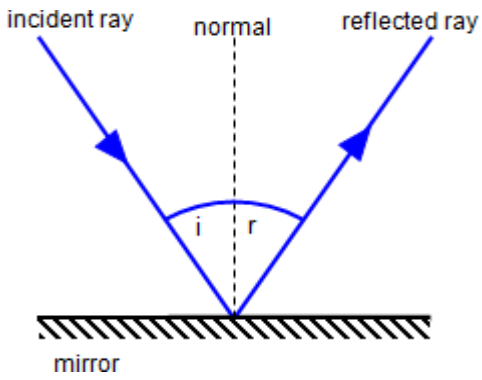
REFLECTION OF LIGHT – PLANE MIRRORS

Terms related to reflection :



Incident ray-the light ray striking the reflecting surface

Point of incidence- the poit 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

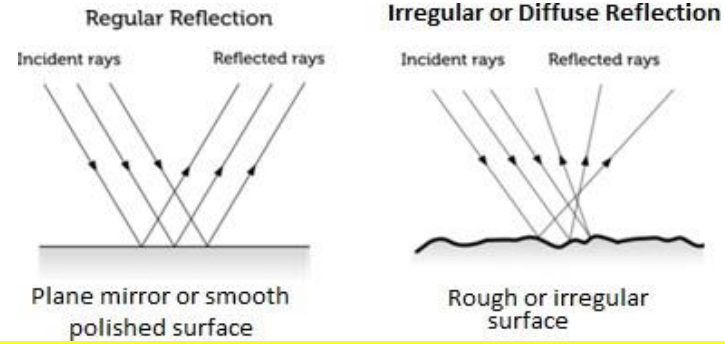
Laws of Reflection :

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

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	Virtual Image
formed due to intersection of reflected rays	formed when reflected rays meet if they are produced backwards
can be obtained on a screen	cannot be obtained on a screen
always inverted	always erect

Characteristics of image formed by plane mirrors :

- Erect
- Virtual
- Same size as the object
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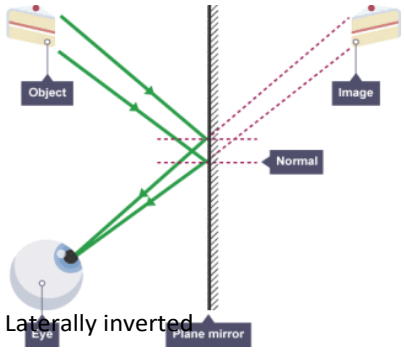


- Laterally inverted

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.

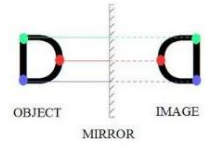
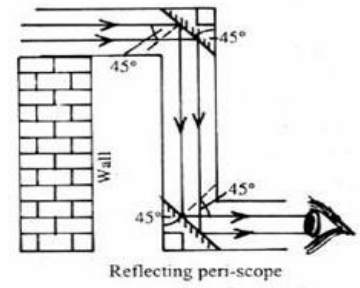


Image	Shadow
formed due to reflection or refraction	formed when light falls on opaque body
image is seen when light coming from the object after reflection enters the observer's eye	no light enters the eye from the shadow of the object
image gives more details like, color, structure etc about the	does not provide any details about the object. It gives idea only about the shape

Uses of Plane mirror :

1. Looking glass
2. Periscope :



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

3. Kaleidoscope