

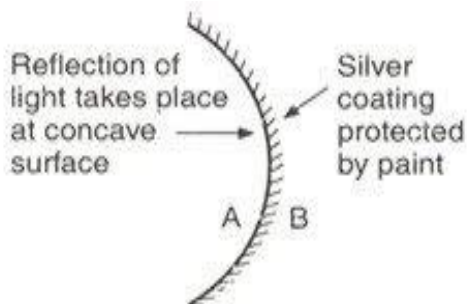
CHAPTER 4. (LIGHT- REFLECTION) (BASED ON NCERT PATTERN)

(REVISION)

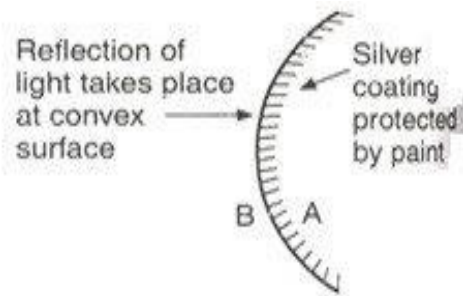
spherical mirror is that mirror whose reflecting surface is the part of a hollow sphere of glass.

Spherical mirrors are of two types: concave mirror and convex mirror.

- In a concave mirror reflection of light takes place in the bent in surface or concave surface.
- The inner shiny surface of a spoon is an example of a concave mirror.
- In a convex mirror the reflection of light takes place at the bulging-out surface or convex surface.
- The back side of a spoon is an example of convex mirror.



(a) A concave mirror



(b) A convex mirror

Centre of curvature: In a spherical mirror the centre of curvature is the centre point of the hollow sphere of a mirror. In concave mirror, centre of curvature is in front of it but in convex mirror it is behind the mirror.

Pole: The centre point on the spherical mirror is called pole.

Radius of curvature: The distance between centre of curvature and pole is called radius of curvature.

Principal axis: The straight line passing through centre of curvature and pole.

Aperture of mirror: The portion of mirror from which reflection of light takes place.

Principal focus of concave mirror: The point on the principal axis to which all the light rays which are parallel to the axis converge after reflection from the concave mirror.

Focal length of concave mirror: The distance between pole and principal focus.

Principal focus of a convex mirror: A point on principal axis from which a beam of light rays appear to diverge after being reflected from the convex mirror.