Reflection from Spherical Mirror

A mirror whose polished, reflecting surface is a part of a hollow sphere of glass is called a **spherical mirror.**

In a spherical mirror one of the surfaces is silvered.

The silver surface is protected by a red lead oxide paint.

Thus, one side of the spherical mirror is made opaque, and the other side acts as a reflecting surface.

Depending upon the nature of the reflecting surface of a mirror, the spherical mirror may be classified as:

- Concave mirror
- Convex mirror

Image formation in Concave Mirror

In case of concave mirror, the image is usually inverted, real and smaller than the object. When the object is kept too close to the concave mirror, the image is erect, virtual and larger than the object.

Uses of Concave Mirror:

- Concave mirror is used by dentists and ENT specialists to focus a beam of light to see inside a patient's mouth or ears.
- Concave mirror is used in solar furnace, because rays of sunlight converge at a point once they reflect from the concave mirror.
- Concave mirror is used as barber's mirror, because it shows a larger image when object is too close.

Reflection from Spherical Mirror

Image formation in Convex Mirror

In case of convex mirror, the image is erect, virtual and smaller than the object.

Uses of Convex Mirror

- Convex mirror is used in rear view mirrors, as it shows smaller images from a bigger field of view.
- Convex mirror is used on hairpin bends, to see the vehicles coming from other side of the bend.
- Staircase-mirrors on the double-decker buses.
- Vigilance-mirrors in big shops and stores.