

Chapter - 15

Light

- **Light:** It is the natural agent that stimulates sight and makes things visible.
- Light travels along straight lines.
- Any polished or a shining surface acts as a mirror.
- An image which can be obtained on a screen is called a **real image**. It formed by light rays that actually pass through the screen.
- An image which cannot be obtained on a screen is called a **virtual image**. It is formed by light rays that seem to pass through the screen.
- The image formed by a plane mirror is erect. It is virtual and is of the same size as the object.
- The image is at the same distance behind the mirror as the object is in front of it.
- In an image formed by a mirror, the left side of the object is seen on the right side in the image, and right side of the object appears to be on the left side in the image.
- A **concave mirror** can form a real and inverted image. When the object is placed very close to the mirror, the image formed is virtual, erect and magnified.
- A **Convex mirror** is the mirror that curves out; the reflecting surface is convex. Image formed is virtual, upright and diminished. Image formed by a convex mirror is erect, virtual and smaller in size than the object.
- A **Concave lens** is the lens that is thinner at the centre than at the edges. It is a diverging lens. Image formed is virtual, erect and diminished.
- A **convex lens** can form real and inverted image. When the object is placed very close to the lens, the image formed is virtual, erect and magnified. When used to see objects magnified, the convex lens is called a magnifying glass.
- White light is composed of seven colours.
- **Properties of Light:**
 - Rectilinear Propagation of Light:** It is the property of light to travel in a straight line in any direction. The direction of path in which light make a ray.
 - Reflection of Light:** It is the bouncing back of light after striking the surface of an object. Shiny smooth surfaces reflect almost all the light.
 - Dispersion:** It is the phenomenon of splitting of white light into its seven colours. White light is mixture of: Violet, Indigo, Blue, Green, Yellow, Orange and Red (VIBGYOR) colours.