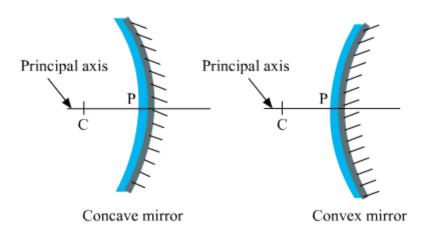
## Light

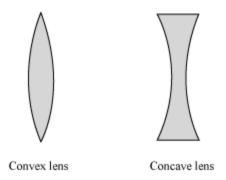
- 1. Light always travels along a straight line. This is called **rectilinear propagation** of light.
- 2. Bouncing back of light from any polished surface is known as reflection of light.
- 3. Any polished or shiny surface can change the path of light. A mirror, a shiny plate or spoon, water, etc. can change the path of light.
- 4. Reflection of light from an object makes the object visible.
- 5. The image formed by a plane mirror is **erect**, of the **same size** as the object, and at the **same distance** behind the mirror as the object is in front of the mirror.
- **6.** The left of an object appears right and the right of the object appears left in the image formed by a plane mirror. This is called **lateral inversion**.

## Two types of spherical mirrors

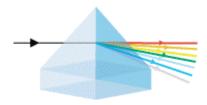


- 1. The image formed by a convex mirror is **erect** and **diminished**. It is formed behind the mirror.
- 2. The image formed by a concave mirror can be **erect as well as inverted**, **diminished as well as magnified**, behind the mirror as well as in front of the mirror, depending on the distance of the object from the mirror.
- 3. The image that can be obtained on a screen is called **real** image. The image that cannot be obtained on a screen is called **virtual** image.
- 4. The image formed by a **convex** mirror is always **virtual**. The image formed by a **concave** mirror can be **real** as well as **virtual**.
  - 1. Concave mirror is used as the reflector of a torch, dentist mirror, etc. It is also used in solar furnaces.

- 2. Convex mirror is used as a rear view mirror in vehicles. It also used road safety mirrors.
- 1. Two types of lenses



- 1. The image formed by a convex lens can be **real** as well as **virtual**, **erect** as well as **inverted**, behind as well as in front of the lens, depending on the distance of the object from the lens.
- 2. The image formed by a concave lens is **virtual**, **erect**, and **in front** of the lens.
- 3. Lenses are used to form specific images in spectacles, telescopic microscopes, magnifying glasses, binoculars, etc.
- 1. White light is composed of seven colours red, orange, yellow, green, blue, indigo, and violet.
- 2. A rainbow consists of all the seven colours of white light.
- 3. A prism splits white light into its seven constituent colours.



4. A Newton disc is a disc with seven segments in rainbow colours. It was invented by Isaac Newton.