

17. Effects of Light

- Scattering is the phenomenon of absorption and re-emission of light.
- The phenomenon of scattering of light by the colloidal particle gives rise to **Tyndall effect**.
- Atmospheric particles, smoke, tiny water droplets, suspended particles of dust, and air molecules scatter sunlight. Therefore, the path of light becomes visible.
- **Sky is blue**- because light near blue wavelength scatters most.
- Danger signs are red in colour- because red light scatters least.
- A shadow is always dark and does not depend on the colour of the object. It is obtained only on a screen.
- We need a source of light and an opaque object to see a shadow on a screen.
- The formation of shadow shows that the light rays travel in a straight line.
- The size and nature of the shadow of an object depend upon its position from the source of light.
- **Sundial** is an instrument that measures the time of a day by the position of the shadow of an object cast by the sun.

