PHYSICS (GRADE-7)

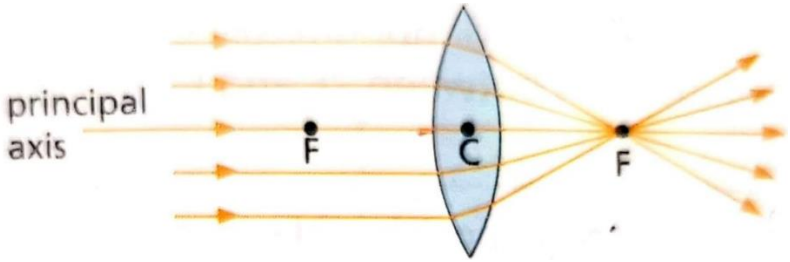
LIGHT
Lesson 31: Lenses

Mrs. Ruksana and Mrs. Farhana

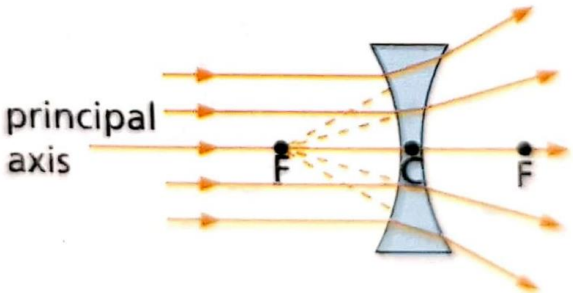
1. Differentiate between convex and concave lenses.

Ans.

A converging (or convex) lens is thicker at the center than at the edges. It bends light inwards.



A diverging (or concave) lens is thinner at the center than at the edges. It spreads light out.



2. Define:

Optical center:
The center of a lens is its optical center, denoted by ‘C’.

Principal axis:
The line joining optical center and principal focus is called principal axis.

Principal focus:
When a beam of light parallel to the principal axis passes through a converging lens, it is refracted so as to converge to a point on the axis. This point is called principal focus, F. It is a real focus. A diverging lens has a virtual principal focus behind the lens, from which the refracted beams seems to diverge.

Focal length:
The distance between the optical center and the principal focus is called focal length, *f*.