CLASS-10

PHYSICAL SCIENCE

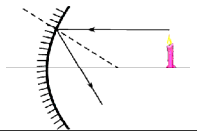
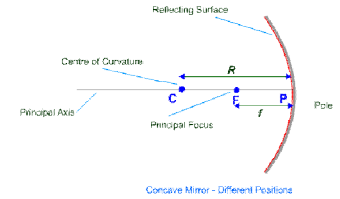
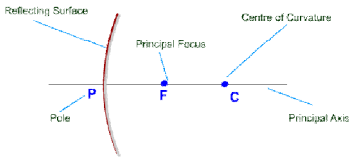
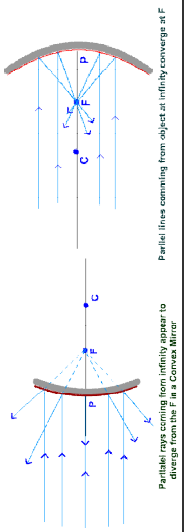
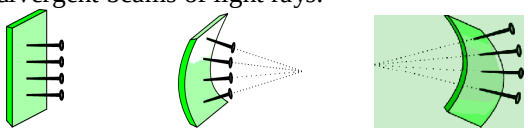
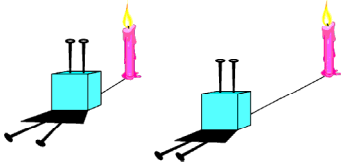
PERIOD PLANS

CHAPTER: 03 – REFLECTION OF LIGHT BY DIFFERENT SURFACES

PERIOD PLAN-05 : Reflection of light by spherical mirrors

Radius of curvature, Principal axis, pole

Parallel beam of rays

Content Analysis	Class Room Environment	Teaching Learning Material
Reflection of light by spherical surfaces: Mirrors having a curved reflecting surface are called spherical mirrors. A spherical mirror is a part of a sphere. * Spherical mirrors are of two types. They are convex and concave mirrors. * Spherical mirror with reflecting surface curved inwards is called concave mirror. * Spherical mirror with reflecting surface curved outwards is called convex mirror.	**Activity-9:** Take spherical mirrors (convex and concave). Observe the surfaces by touch it. Also observe the images formed in the mirrors. **Observation:** The surfaces are different for convex and concave mirrors at reflection surface.	Convex mirror Concave mirror
Finding the normal to a curved surface: Draw a tangent at the incident point to the curved surface. Then draw a perpendicular to the tangent at the incident point, called normal. It must passes through the centre of curvature.	**Conversation:** about to draw a normal for spherical mirrors at a point. 	
Radius of curvature, Principal axis, pole: **Pole:** The centre of the reflecting surface of a spherical mirror is called as Pole. It is denoted by 'P'. **Centre of curvature:** The centre of sphere, of which the reflecting surface of a spherical mirror is a part is called the centre of curvature. It is denoted by 'C'. **Focus:** The point on the principal axis at which the parallel rays coming from infinity converges after reflection is called focus of the spherical mirror. It is denoted by 'F'. nagamurthy.weebly.com **Radius of curvature:** The radius of sphere, of which the reflecting surface of a spherical mirror is a part is called the radius of curvature. It is denoted by 'R'. **Focal length**: The distance between pole and focus is called focal length of the spherical mirror. It is denoted by 'f'. **Principal axis**: The line passing through the pole and centre of curvature of spherical mirror is called principal axis of the mirror.	**Explanation:** About the scientific terms of Convex and concave mirror.  Concave Mirror - Different Positions  Convex Mirror - Different Positions	Chart 
Parallel beam of rays: Parallel , convergent and divergent beams of light rays. 	**Conversation:** about types of beams of light rays. 	Chart

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