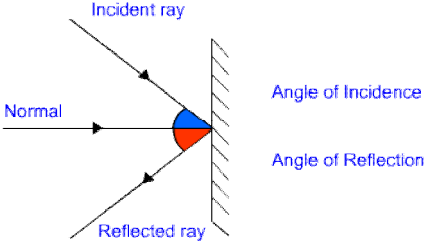
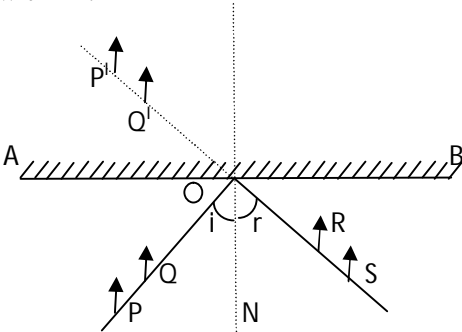


CLASS-10  
PHYSICAL SCIENCE  
PERIOD PLANS

**CHAPTER: 03 – REFLECTION OF LIGHT BY DIFFERENT SURFACES**

**PERIOD PLAN-03 :** Reflection of light by plane mirrors  
Angle of incidence, reflection- Plane of reflection  
Laws of reflection

Content Analysis	Class Room Environment	Teaching Learning Material
<p><b><u>Reflection of light by plane mirrors:</u></b> The rays coming from the top of the object will reach the lower part in the image. The image of the object is inverted.</p>	<p><b>Activity-6:</b> Take a plane mirror and observe the images of different objects through a plane mirror. <b>Observation:</b> The images are same size as the objects and laterally inverted.</p>	<p>Plane mirror Objects like pencil, scale, toys, a map</p>
<p>Reflection is one of the unique properties of light. It is the reflection of light, which enables us to see any object. <b>Reflection:</b> The bouncing back of rays of light from a polished and shiny surface is called reflection or reflection of light. It is similar to bouncing back of a football after colliding with a wall or any hard surface. <a href="http://nagamurthy.weebly.com">nagamurthy.weebly.com</a></p>	<p><b>Conversation:</b> About the reflection of light through plane mirrors.</p> 	<p>Chart</p>
<p><b><u>Angle of incidence, reflection- Plane of reflection:</u></b> (i) The angle between incident ray and the normal to the plane of reflection at the point of incidence is called angle of incidence. It is denoted with 'i'. (ii) The angle between reflected ray and the normal to the plane of reflection at the point of incidence is called angle of reflection. It is denoted with 'r'.</p> 	<p><b>Activity-7:</b> Verify the laws of reflection. <b>Procedure:</b> Fix a white paper on a drawing board with the help of clamps. Draw a straight line AB at the centre of the paper and a normal (ON) to AB at 'O'. Draw a straight line PQ making certain angle (<math>\hat{i}</math>) with ON. Fix two pins at P and Q on the paper vertically. Observe the images P<sup>1</sup> and Q<sup>1</sup> of the pins P and Q, in the mirror kept along the line AB. Fix two more pins R and S such that they are in the same line as that of P<sup>1</sup> and Q<sup>1</sup>. Join R, S and O. Measure the angle between RS and ON (angle of reflection). We find that angle of incidence = angle of reflection. Repeat the experiment for different angles of incidence. In all cases the angle of reflection is equal to the angle of incidence. <b>Hence first law of reflection is verified.</b> Incident ray, reflected ray and normal lie on the same plane. <b>Hence second law of reflection is verified.</b></p>	<p>Drawing board Pins-4 Clamps-4 Plane mirror-1 White paper Scale protractor</p>