

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Light

Q1. Describe an activity to show that the incident ray, the reflected ray and the normal at the point of incidence lie in the same plane.

Ans. \_\_\_\_\_

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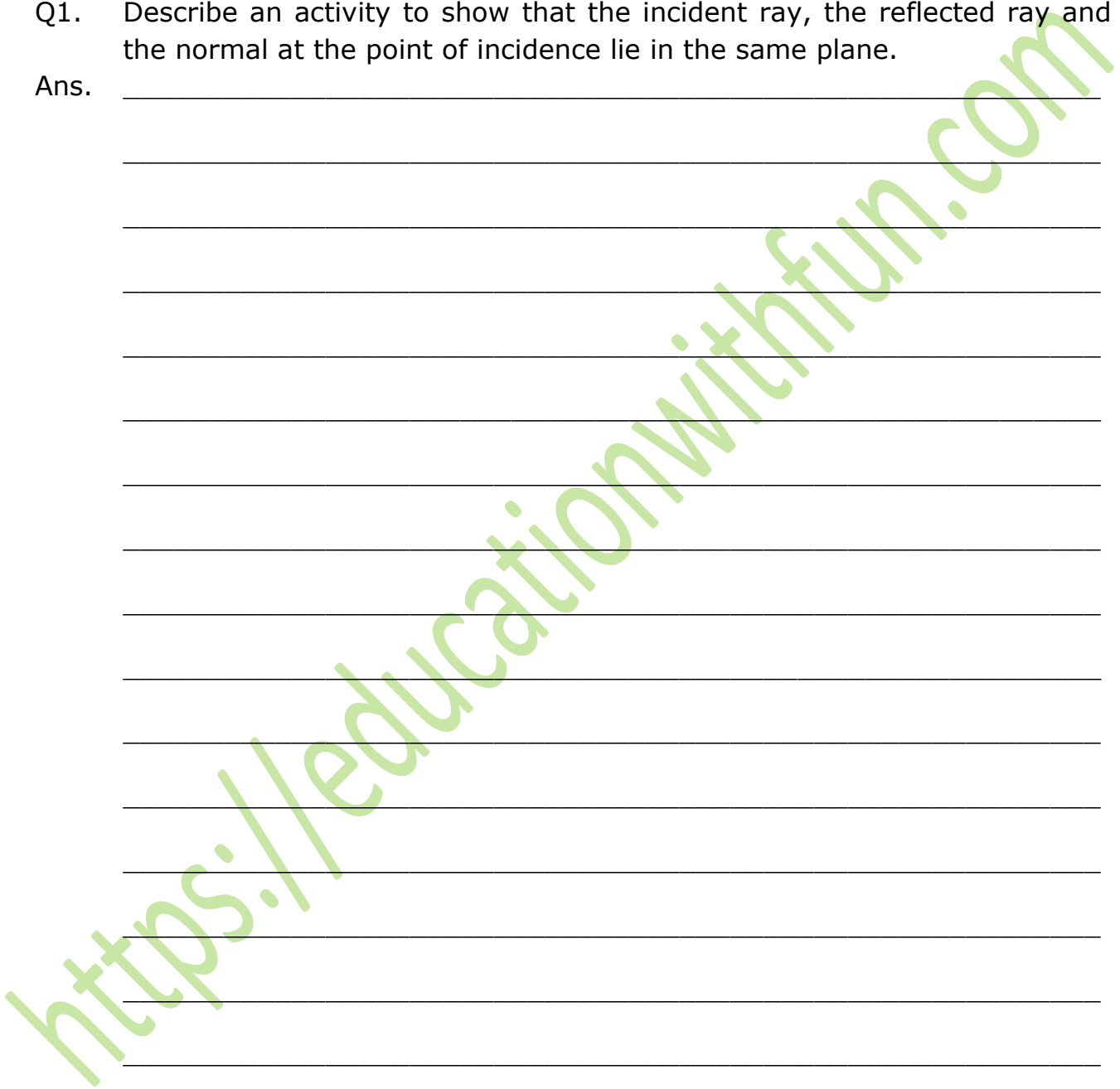
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## Light

Q1. Describe an activity to show that the incident ray, the reflected ray and the normal at the point of incidence lie in the same plane.

Ans. Fix a white sheet of paper on a drawing board or a table. Take a comb and close all its openings except one in the middle. Hold the comb perpendicular to the sheet of paper. Throw light from a torch through the opening of the comb from one side. With slight adjustment of the torch and the comb we will see a ray of light along the paper on the other side of the comb. Keep the comb and the torch steady. Place a strip of plane mirror in the path of the light ray. Let the sheet project a little beyond the edge of the Table. Cut the projecting portion of the sheet in the middle. Look at the reflected ray. Make sure that the reflected ray extends to the projected portion of the paper. Bend that part of the projected portion on which the reflected ray falls. Bring the paper back to the original position. When the whole sheet of paper is spread on the table, it represents one plane. The incident ray, the normal at the point of incidence and the reflected ray are all in this plane. When we bend the paper we create a plane different from the plane in which the incident ray and the normal lie. Then we do not see the reflected ray. It indicates that the incident ray, the normal at the point of incidence and the reflected ray all lie in the same plane.

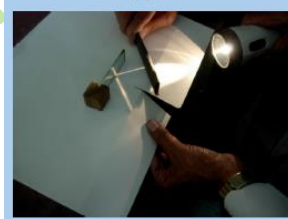


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