

How Does Light Move?

Name: _____

Directions: In groups of three, complete the following experiments.

I Predict
(circle one):

YES NO

Experiment A:

Does light move in a straight line?

Procedure:

1. Punch a small hole in a group of three sheets of paper.
2. Go to a darkened room with a flashlight, turn it on, and point it toward a wall. Hold up one of the pieces of paper in front of the light. How does the light look different on the wall? _____
3. Have one member of your group hold up another piece of paper in front of the first one and move the paper until the light still shines on the wall.
4. Have another member of the group repeat step 3 with the last sheet of paper.

Conclusions: Did you prove your prediction? How do you know? _____

I Predict
(circle one):

YES NO

Experiment B:

Will water make light rays *refract* (bend)?

Procedure:

1. Place a penny on a table and put a clear drinking glass over the penny as shown in Diagram A.
2. Sit down in front of the glass. Can you see the penny through the side of the glass? _____
3. Have a partner fill up the glass with water. Can you see the penny now? _____
4. What happens when you stand up? Can you see the penny? _____

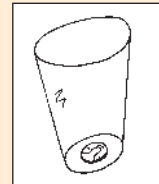


Diagram A

Conclusions: Did you prove your prediction? How do you know? _____

I Predict
(circle one):

YES NO

Experiment C:

Will a mirror make light rays *reflect* (bounce)?

Procedure:

1. Go to a darkened room with a flashlight and shine it in front of you. In what direction does the light travel? _____
2. Place a mirror in the path of the light. Does it travel in the same direction as it did before? How do you know? _____
3. What happens when you angle the mirror? _____

Conclusions: Did you prove your prediction? How do you know? _____

