

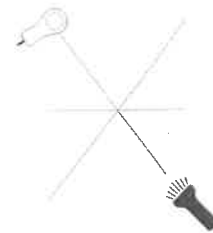
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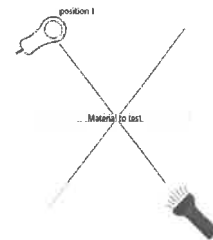
Measuring Light Lab Procedures

For each material listed in the table below, make a prediction about what the light will do when you shine it on the material. Will it go through (transmit)? Will it bounce off (reflect)? Will it do both? Will it do something else? Circle your predictions in the second row of the data table. Choose a role for each member of your group. Who will hold the flashlight? Who will hold the light meter? Who will hold the material? Who will read the light meter and record the data?

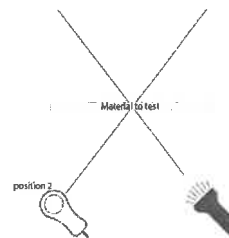
Wait for your teacher to darken the room. Make sure that your light meter is set to medium sensitivity (x10 lux) and that the flashlight and the light meter are pointed in the right directions. Use the template to keep the flashlight and the light meter the correct distance apart. Then measure how much light is coming from the flashlight when nothing is in the way. Record that value in the box at the top of the data table.



For each material listed in the data table, measure the light that goes through the material (position 1). Record each observation in the data table.



Then measure the light that bounced off the material (position 2). Record each observation in the data table. Then circle the option (or options) in the right column that best describes what happened to light when shined on the material. Test two more materials if you have time. Record the names of what you are testing in the blank boxes in the left column of the table.



Title a new page in your notebook: Measuring Light Lab. Return these procedures to your teacher and attach the data table to your notebook. Then, on the opposite page answer the following questions: How does the 1-way mirror compare to a regular mirror? How does the 1-way mirror compare to the clear plexiglass? Did your predictions match your observations? What surprised you?