

Discovering STEM Program

Reflection Relay

A light source, such as a filmstrip projector, must be provided by the school.

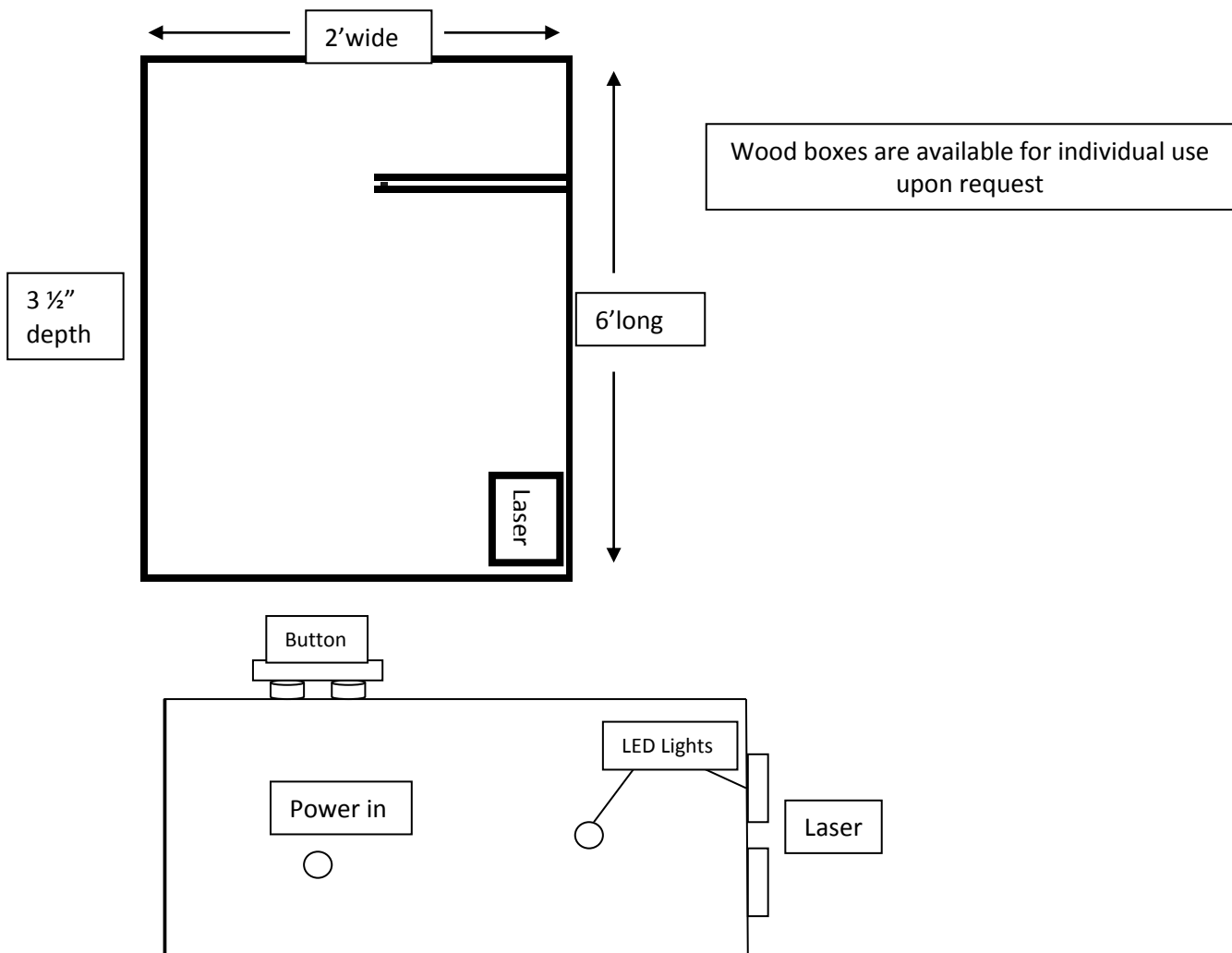
This activity works best if done in an area that can be darkened, such as a separate room that can be closed off when the activity is being done.

It is recommended that the supervisor practice working with the materials prior to the time of the event.

The supervisor should demonstrate the process of using a mirror to reflect light from the projector at a certain angle to be directed to a certain spot. Students can explore this process individually before working with the group members. Diagrams provided below show how to cooperatively use three and four mirrors to hit a specific target. It is possible that students can find a way to combine more than four mirrors to do this.

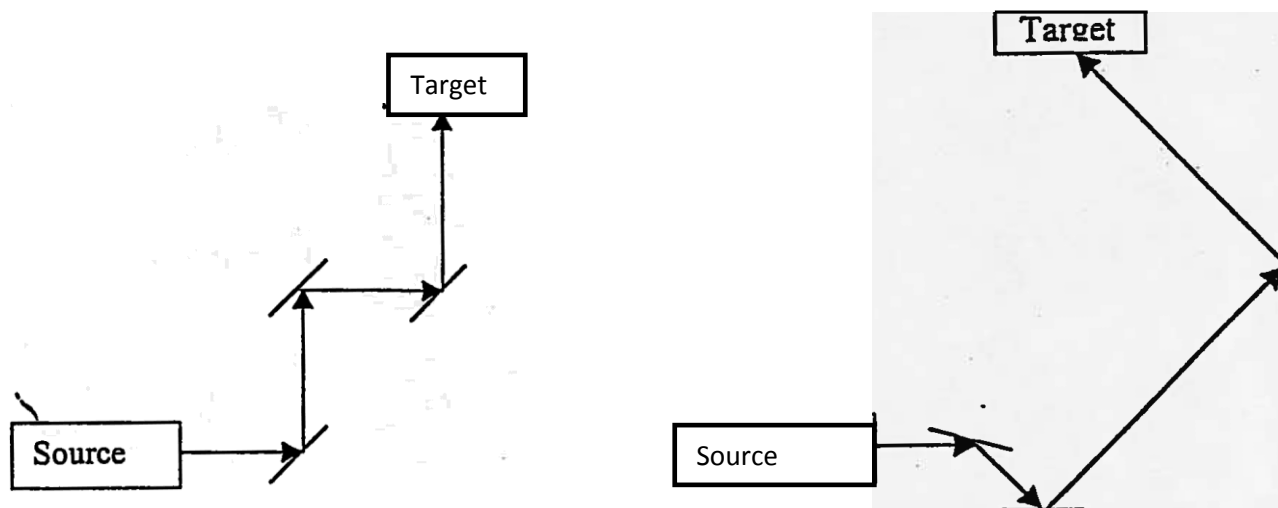
It is recommended that the preparation time not be limited to one minute. This activity can be done on an informal basis with less emphasis on how quickly it is completed and more emphasis on the process used to do it

If the students have been given copies of the student worksheet, the supervisor can guide them in completing it. The diagrams on the second page of the activity sheet should be useful.



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Diagrams for Setting Up:



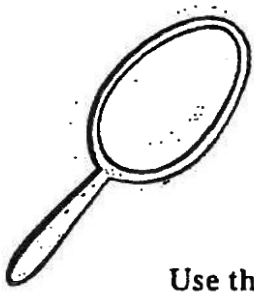
Resources:

Light and Sight. Prentice-Hall Melvin Alexenberg

The Science Book of Light, Gulliver Books, 1991
Neil Ardley

Amazing Science Experiments with Everyday Materials, Sterling Publishing Co., N Y, 1991
Richard E. Churchill

Light Magic, Greey de Princier Book Co., 1988 . Trudy Rising



Reflection Relay

Student Sheet

Use this space to make a diagram showing how your group bounced the light beam onto the target.

Look at your diagram and determine the angle at which light struck the first mirror. Then look at the diagram to see the angle at which light was reflected off the mirror. How do they compare?

What did you learn about how light is reflected off from an object such as a mirror compared to how it struck the object.