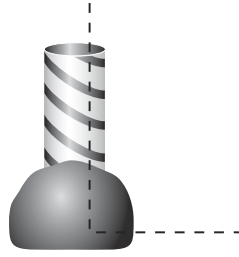


# The Shadow Knows

## Procedures

1. Cut a six centimeter piece off of your straw. Use a small ball of clay to hold it perpendicular to your table.



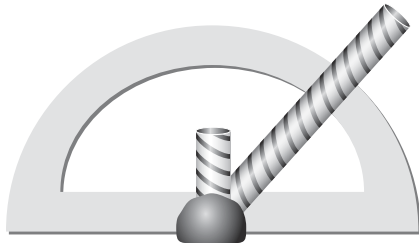
2. Split the remaining piece of the straw so it will fit over the protractor and work as a guide for the light beam.



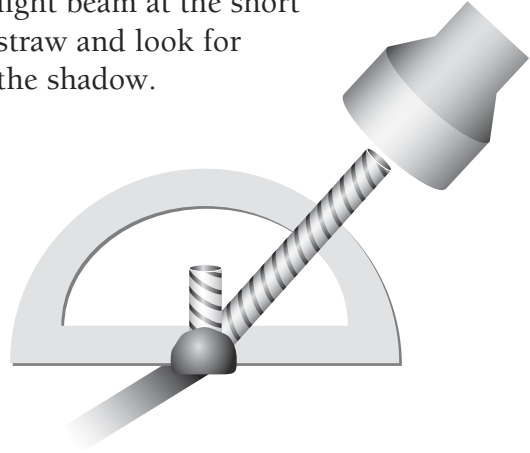
3. Choose three acute angles that divide the right angle relatively equally and write them on the chart.

Angle of Incidence	Shadow Length in centimeters
90°	

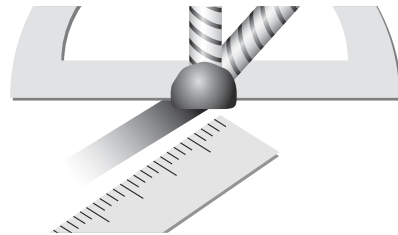
4. Line the straw on the protractor up on the angle from your chart. Center the protractor on the straw stuck to your table.



5. Using the long straw as a guide, aim the light beam at the short straw and look for the shadow.



6. Measure and record the length of the shadow on the chart.



7. Change the protractor and straw to the next angle and repeat the process.
8. Using the data from the chart, write a statement that describes the relationship between the angle of incidence and the shadow.

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