Law of Reflection Lab  
Physics 40

Objective: To determine the Law of Reflection and correctly model the path of a ray of light as it undergoes specular reflection.

Materials:

* 10 pins
* 1 plane mirror
* Clay (to hold the mirror)
* White paper
* Cardboard

Procedure:

1. Fold the white paper in half, hamburger style.
2. Place the white paper on top of the cardboard. Place the mirror in the clay and stick to the center of the paper along the fold.
3. Place the first pin in the center of the mirror.
4. Get down at eye level, place the second pin *directly behind* where the reflection of the first pin appears to be.
5. Place the third pin to the right of the first pin. Follow the procedure for step four to place the fourth pin behind the reflection of the third
6. Continue this until you run out of pins.
7. Mark and number the placement of each pin on your white paper.
8. Remove all pins. Remove the mirror. Mark the location of the mirror.
9. Using a ruler or other flat edge, draw a line connecting each of the pins to the pin that represents the location of its reflection.
10. Measure the angles you have created with the line representing the mirror, both in front of and behind the mirror
11. Based on this deduction, derive the law of reflection

The Law of Reflection states that the angle of incidence is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the angle of reflection