



Curiosity Guide #203

Refraction of Light

Accompanies Curious Crew, Season 2, Episode 3 (#203)

Disappearing Penny

Investigation #4

Description

Amuse your friends with this disappearing act!

Materials

- Drinking glass or wide-mouth plastic cup
- Small saucer
- Penny
- Container of water

Procedure

- 1) Place the empty cup or glass on the penny.
- 2) Place the saucer on top of the cup.
- 3) Ask your friend to look at the penny through the cup.
- 4) Tip the saucer up so that your friend cannot see into the top of the cup.
- 5) Slowly fill the cup with water.
- 6) Can your friend see the penny?

My Results

Explanation

When the cup is empty, the light rays reflecting off the penny are not changed as the rays pass through the glass and the air in the cup.

However, when the water is added to the glass, the light now travels through something denser, is slowed down, and is bent right up through the top of the glass. Because the rays no longer travel back through the side of the cup to the person's eye, it looks as though the penny has disappeared.

Parents and Educators: use #CuriousCrew
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Crew learned!



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