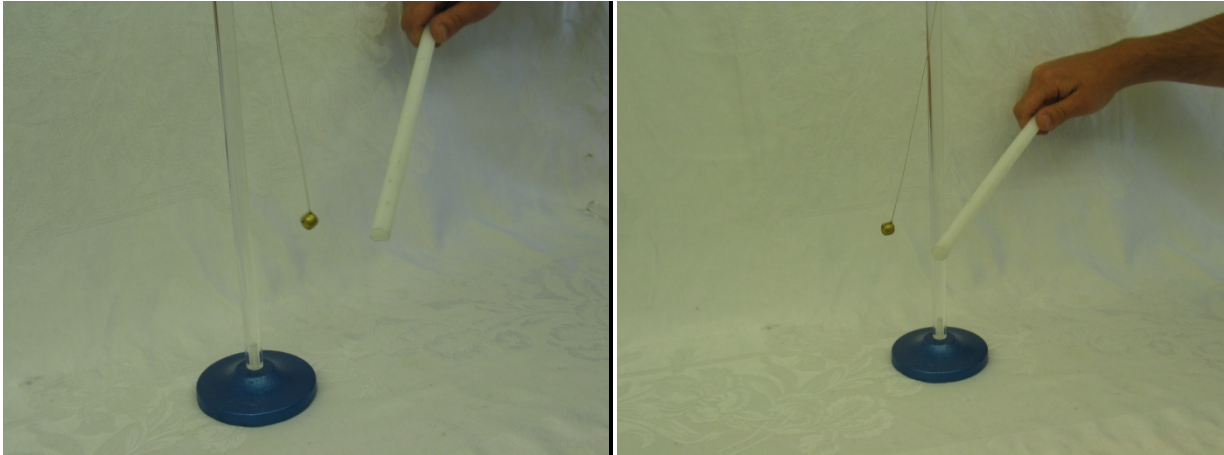


## Attracting and Repelling with the Same Charge?



**Purpose:** To demonstrate that an uncharged pith ball is attracted to a charged rod until it comes in contact with the rod, at which time it suddenly becomes repelled by the rod.

**Location:** room 146, shelf L2

Rub the Teflon<sup>R</sup> rod with fur and slowly bring it near enough to the suspended pith ball to show that it is attracted to the rod even though it has no net charge. (Ask for possible explanations.) Ask students to predict what will happen if the rod is brought closer to the pith ball. Then, bring the rod close enough that the pith ball momentarily sticks to it and suddenly moves away, as attraction turns into repulsion! Ask how the observed behavior could be explained in terms of “charge”?