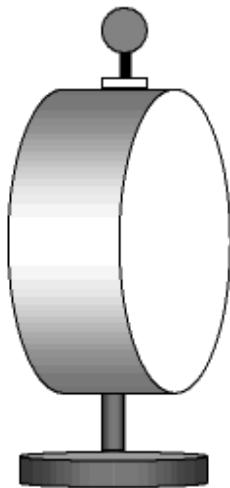


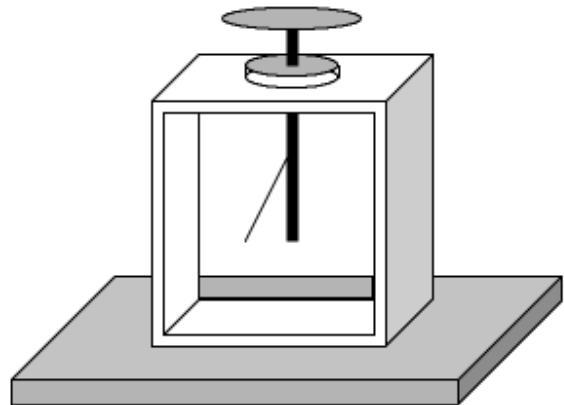
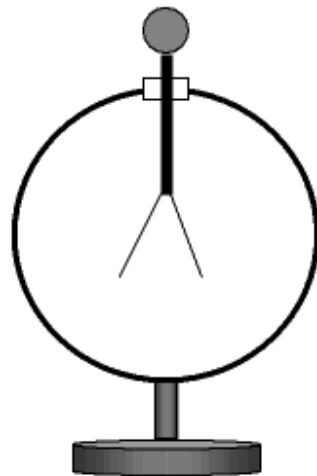
PURPOSE:

MATERIALS: Plastic strip with cotton cloth; acetate strip with wool cloth; metal tube with cotton cloth; metal tube with wool cloth; electroscope (ES)

DIAGRAM: On the diagrams below, label the parts of the electroscope (insulating stand, fixed conducting sphere/plate, fixed conducting rod, movable conducting leaf/leaves)



cylindrically shaped
electroscope



box shaped
electroscope

PROCEDURE and OBSERVATIONS Draw the position of the metal needle before, during, and after each step of the procedure. Each step in the procedure follows directly from the previous.

1. Rub plastic with cotton; bring NEAR (but not touching) the top of the ES then remove. The leaves, originally hanging vertically, spread apart then fall to hang vertically again.

BEFORE	DURING	AFTER

2. Touch the plastic to the top of the ES. The leaves, originally hanging vertically, spread apart and remain apart.

BEFORE	DURING	AFTER
		

3. Rub the acetate with wool; bring NEAR (but not touching) the top of the ES. The leaves, originally spread apart, fall to hang vertically then spread apart again.

BEFORE	DURING	AFTER
		

4. Touch the acetate to the top of the ES. The leaves, originally spread apart, fall to hang vertically then spread apart again and remain apart.

BEFORE	DURING	DURING	AFTER
			

5. I touch the top of the ES with my finger. The leaves, originally spread apart, fall to hang vertically.

BEFORE	DURING	AFTER
		

6. a) Rub the plastic with cotton; bring it NEAR (but not touching) the top of the ES. The leaves, originally hanging vertically, spread apart. I touch the top of the ES with my finger while the rubbed plastic is near. The leaves then fall to hang vertically again.

BEFORE	DURING (plastic near)	DURING (touch with finger)
		

b) I remove my finger. The leaves remain hanging vertically. Then I remove the rubbed plastic. The leaves spread apart and remain apart.

DURING (touch with finger)	DURING (finger removed)	AFTER (plastic removed)
		

c) Bring the plastic NEAR but not touching the ES. The leaves, originally spread apart, fall to hang vertically then spread apart again and remain apart.

BEFORE	DURING	AFTER
		

d) Bring the acetate rubbed with wool NEAR but not touching the ES. The leaves, originally spread apart, spread further apart then fall to the original spread and remain apart.

BEFORE	DURING	AFTER
		

7. I touch the top of the ES with my finger. The leaves, originally spread apart, fall to hang vertically.

BEFORE	DURING	AFTER
		

8. Rub the metal tube with cotton. Bring NEAR (but not touching) the top of the ES. The leaves, originally hanging vertically, do not spread apart and continue to hang vertically.

BEFORE	DURING	AFTER
		

9. Rub the metal tube with wool. Bring NEAR (but not touching) the top of the ES. The leaves, originally hanging vertically, do not spread apart and continue to hang vertically.

BEFORE	DURING	AFTER
		