I. Electrical interactions

A. Press a piece of sticky tape, about 15–20 cm in length, firmly onto a smooth unpainted surface, for example, a notebook or an unpainted tabletop. (For ease in handling, make “handles” by folding each end of the tape to form portions that are not sticky.) Then peel the tape off the table and hang it from a support (e.g., a wooden dowel or the edge of a table).

Describe the behavior of the tape as you bring objects toward it (e.g., a hand, a pen).

B. Make another piece of tape as described above. Bring the second tape toward the first. Describe your observations.

It is important, as you perform the experiment above, that you keep your hands and other objects away from the tapes. Explain why this precaution is necessary.

How does the distance between the tapes affect the interaction between them?

C. Each member of your group should press a tape onto the table and write a “B” (for bottom) on it. Then press another tape on top of each B tape and label it “T” (for top).

Pull each pair of tapes off the table as a unit. After they are off the table, separate the T and B tapes. Hang one of the T tapes and one of the B tapes from the support at your table.

Describe the interaction between the following pairs of tape when they are brought near one another.

- two T tapes
- two B tapes
- a T and a B tape