

ELECTROPHORUS OBSERVATION SHEET

Part I:

- A. Predict what you think will happen if you bring your finger near the edge of the pie pan as it sits on the Styrofoam™ plate.

- B. Observe what happens as you touch the edge of the pie pan with your finger. Record your observations.

- C. Predict what you think will happen if you bring your finger near the edge of the pie plate when you lift the pie pan several inches off the Styrofoam™ plate.

- D. Using the Styrofoam™ cup as a handle, lift the pie pan several inches (at least 6 inches) off the Styrofoam™ plate. Observe what happens as you touch the edge of the raised pie pan with your finger. Record your observations.

- E. Replace the pie pan on the Styrofoam™ plate and touch it again. Record your observations.

- F. Repeat steps D and E several times. Record your observations.

PART II:

- G. Predict what you think will happen when you attach a sewing needle to the edge of the aluminum pan and then bring your finger near the edge of the pan as it sits on the Styrofoam™ plate.
- H. Use a piece of masking tape and attach a sewing needle to the edge of the aluminum pie pan with the sharp end pointing out. Rub the Styrofoam™ plate with the woolen cloth and touch the edge of the pan with your finger. Record your observations.
- I. Raise the aluminum pie pan as before and touch the edge with your finger. Record your observations.
- J. Now, it is time to investigate your ideas. Record what you tried and what you observed. SUGGESTIONS: Can you touch the pie pan several times before raising it and get the same results as before? How high can you raise the pan or how far away can you take the pan? Can you substitute other materials for the Styrofoam™ plate, for the woolen cloth or for the sewing needle?
- K. Record your conclusions in your science journal.
1. Draw a diagram of the electrophorus you made.
 2. Explain what you think was happening when you touched the aluminum pan on the plate and then touched it again when it was raised.
 3. Explain the addition of the sewing needle and how it affected the experiment.
 4. Explain the importance of the Styrofoam™ cup handle.
 5. Explain your reactions to the experiment.