24. Bring the second plate near the first again. Using both capacitor plates, try to cause the same result as you obtained using only one plate.

25. Clean up your work area. Put equipment away safely so that it is ready to be used again. Recycle or dispose of used materials as directed by your teacher.

ANALYSIS

1. **Classifying** Use examples from your observations to explain your answers to the following questions. Assume that the polystyrene rod takes a negative charge when it is rubbed with wool. To answer these questions, assume that like charges repel one another and unlike charges attract one another.

   a. What type of charge is on tape A?
   b. What type of charge is on tape B?
   c. Are the charges on C and D the same?
   d. Are the charges on C or D the same as the charges on A or B?
   e. What type of charge is on the charged suspended glass rod? Is the charge on the suspended glass rod the same as or different from the charge on tape A?
   f. What type of charge is on the charged suspended polystyrene rod?
   g. What type of charge is on the second charged polystyrene rod?
   h. What type of charge is on the charged suspended PVC rod?

2. **Describing Events** Use your observations to answer the following:

   a. After you touch the knob of the electroscope with your hand, what type of charge is on the electroscope? Explain how your observations support this conclusion.
   b. When the charged polystyrene rod is used to charge an electroscope by induction, what type of charge is on the electroscope?
   c. What type of charge is on the electroscope when it is charged by induction using the charged glass rod?

3. **Classifying** Is copper a conductor or an insulator? Is silk a conductor or an insulator? Use your observations to support your answers.

CONCLUSIONS

4. **Drawing Conclusions** Based on your observations, how many types of charge are there? Explain how your observations support this conclusion.

5. **Applying Conclusions** Use your results to explain what a capacitor does.