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## ELECTROLYSIS AND ELECTROPHORESIS TEACHERS GUIDE

**Time needed:** one period, or half a period as a demonstration. (If you have clear gel boxes, place on the overhead and project for class to see changes)

**Materials:**

power supply	1M sodium chloride solution	10 ml graduated cylinders
gel box	distilled water	p1000 pipets and tips or
waste container (for tips)	phenol red dye solution	eyedroppers
10ml buffer (1XTAE or TBE)		

NOTE: measurements are approximate in this lab—precision is unimportant to results

**Teaching Tips:**

Be sure students “slosh” their gel boxes thoroughly (but carefully) in Step 10, or Step 11 won’t be as dramatic.

If you have clear gel boxes, a sheet of white paper underneath will highlight the color changes.

Adding buffer will stabilize the pH, and at Step 14 you will not see the immediate color changes that occur at Step 11. But eventually changes in color DO develop if you let the box run for 5-10 minutes, because the capacity of the buffer is exceeded.

Decide whether you want students to use the Activity Sheet or not.