Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Electrolysis Lab**

**Materials for each lab group:**

* Two pencils with both ends sharpened
* Two alligator clips
* One 9 volt battery
* Electrical tape
* One petri dish
* 10mL of 1.0 M KI mixed with Universal Indicator (begins green-brown color)

**Procedures:**

1. Put one end of the red alligator clip on the (+) top part of the battery, and then put one end of the black alligator clip on the (-) top part of the battery (this part of the battery has a fluted edge)
2. Attach the other end of the red alligator clip to one pencil lead (graphite) electrodes. Attach the other end of the black alligator clip to the second pencil lead (graphite) electrodes. It does not matter which goes where.
3. Pour the 10mL of 1.0M KI/indicator solution into the petri dish.
4. Hold the pencils by the tape over the battery and place the unattached pencil tip electrodes into the petri dish. Keep the pencils in the solution for approximately 5 minutes.
5. Disassemble and clean up.

**Data Collection and Analysis:**

1. Draw below a before and after picture. Be sure to label the colors, reactions occurring, reactants used, and products formed. Use the attached Drawing rubric to help you.
2. Write the half-cell reaction occurring at the anode:
3. Write the half-cell reaction occurring at the cathode:
4. What element or ion did phenolphthalein confirm?
5. What gas produced bubbles?
6. What other simple lab chemical test could you use to confirm the production of I2? Think back to bio with your macromolecules tests…