

Name:

Date:

TA:

Activity 8.1A: A Penny for a Battery Procedure:

COMMON ERROR: DO NOT ALLOW DIFFERENT TIN FOIL LAYERS TO TOUCH EACH OTHER IF AT ALL POSSIBLE!

1. Fold a piece of tinfoil into a rectangle as in the picture to the right.
2. Take a piece of paper towel. Fold it into a square slightly larger than the penny.
3. Arrange the tin foil, the paper towel, and the penny as shown.
4. Clip a black alligator clip to the tin foil, and run it to the negative terminal in the voltmeter.



5. Connect a red alligator clip to the positive terminal of the voltmeter (use the lowest voltage setting to start out). Press the other end firmly against the penny while watching the voltmeter for any motion.

6. Note down the voltage of the dry paper towel in your chart. In science, we compare results to a starting point!

7. Now wet the paper towel piece with vinegar. Put it back where it was in the arrangement and record the voltage in your chart.

8. Now, add another tin foil, wet paper towel, and penny layer. **This time, fold the tin foil into a penny sized square in order to prevent it from touching other cells. Record the voltage in your chart.**

9. Continue to add layers, recording the new voltage each time.