Name
Date **Period**

Grade:

EXPERIMENT 34
ELECTROPLATING A COIN

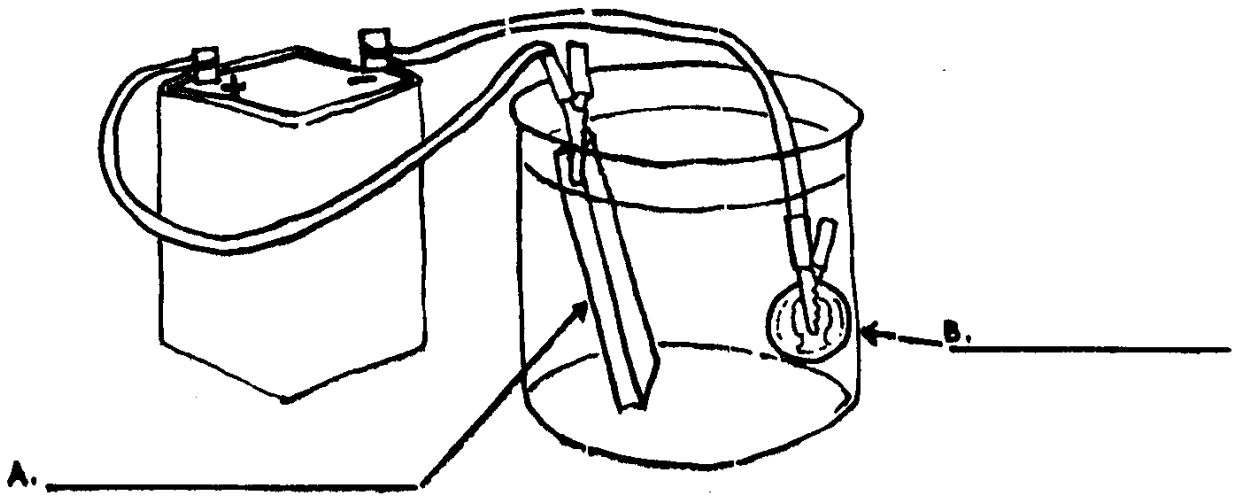
PRELAB QUESTIONS:

1. Define: electrolytic cell, anode, cathode, redox.
2. What happens to the positive electrode? The positive ions in an electroplating reaction?
3. Why is a conservation of both mass and charge important? Explain this in relationship to previous laws you have learned.

Name **Period**

Date **Lab Partners**

EXPERIMENT 34
ELECTROPLATING A COIN



CONCLUSIONS AND QUESTIONS:

1. What is the half reaction at the cathode?

2. Is the cathode half reaction oxidation or reduction?

3. What is the half reaction at the anode?

4. Is the anode half reaction oxidation or reduction?

5. What did you observe happening to the coin? What is happened to the copper electrode?

6. If the set up were left to run for several hours, what would happen to the mass of the solid copper electrode? The coin?

7. At what point would the reactions cease?

8. List some practical applications for electroplating.

9. Why is electroplating used in jewelry making?

10. Make up and draw your own electroplating experiment. You may use any metal, spare no expense, as the anode. Any object that conducts electricity can be used as the cathode to be plated. Draw a diagram of your set up. Label anode and cathode. Draw arrows for electron flow and ion migration. Write half reactions that are occurring at the anode and cathode. Label half reactions as oxidation or reduction.