

Make Your Own Computer Chip!

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Subject: Chemistry
Level: 10th grade
Standards: CA Chemistry Standards: The Periodic Table; Chemical Bonds; Conservation of Matter; Acids and Bases
Schedule: (1) block day (90 minutes)

Objectives:

By the end of this lesson, students will:

- Be able to write the balanced equation for the reaction taking place
- Be able to predict which variable in the reaction is the limiting reagent
- Be able to identify the acid and base in the reaction based upon the Bronsted-Lowry and Arrhenius definitions
- Understand the practical applications of electrochemical reactions

Students will:

- Isn't this redundant?

Vocabulary:

- Cation/anion
- Electroplating
- Acid/base
- Intermolecular forces
- Intramolecular forces
- Limiting reagent

Materials:

For Each Pair:

- Three 9-volt batteries
- A copper (II) sulfate solution
- Copper strip
- Silicon strip
- Brillo pad
- Alligator clips
- beaker

	Safety:

Science Content for the Teacher:

Preparation:



Classroom Procedure:

Engage (Time:)

Explore (Time:)

Explain (Time:)

Expand (Time:)



Assessment:

The following rubric can be used to assess students during each part of the activity. The term “expectations” here refers to the content, process and attitudinal goals for this activity. Evidence for understanding may be in the form of oral as well as written communication, both with the teacher as well as observed communication with other students. Specifics are listed in the table below.

- 1= exceeds expectations
- 2= meets expectations consistently
- 3= meets expectations occasionally
- 4= not meeting expectations

	Engage	Explore	Explain	Expand/Synthesis
1				
2				
3				
4				

Extension Activities:

Supplemental Information:

Safety:

Acknowledgments:

