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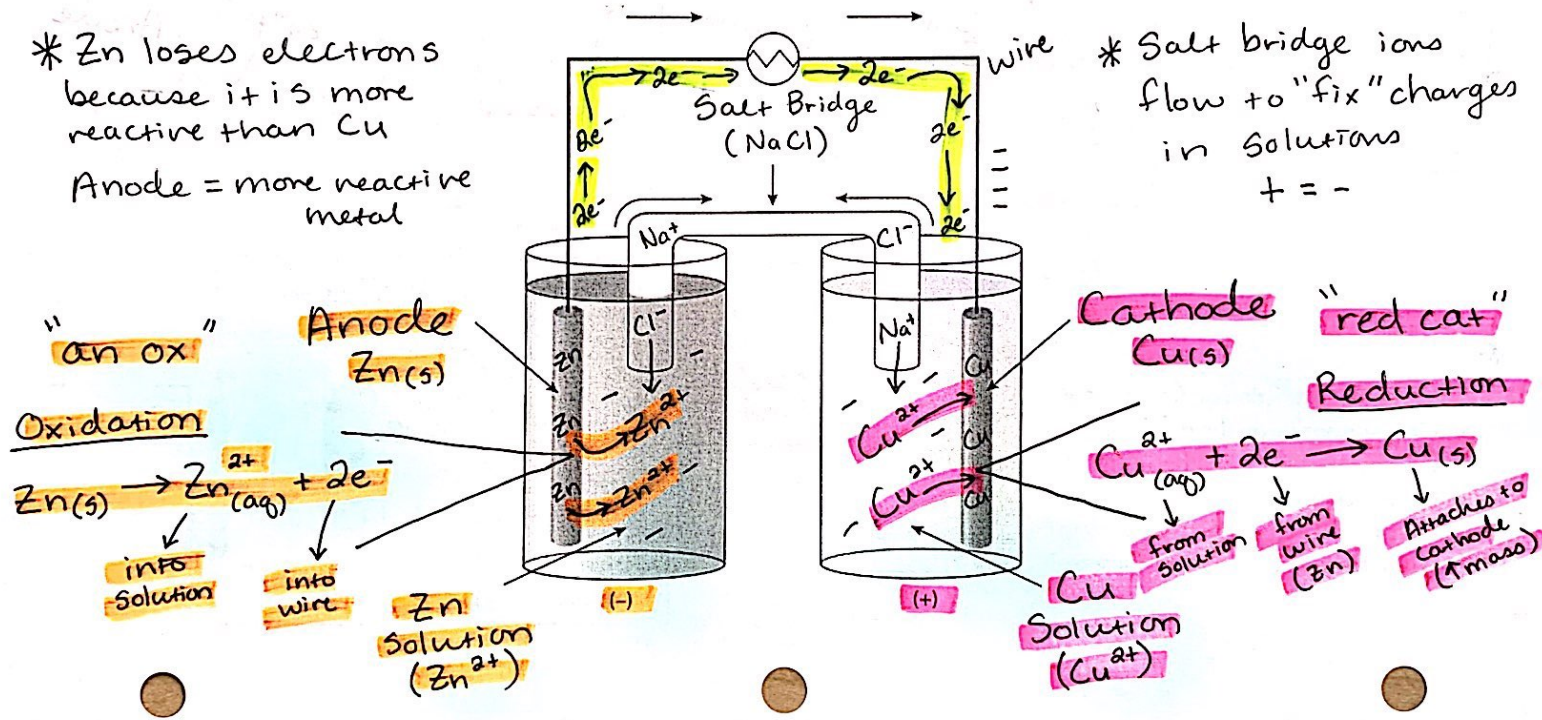
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### Unit 5 - Electrochemistry - Introduction to Electrochemistry

Voltaic Cell	chemical battery that uses RedOx reactions to create e <sup>-</sup> flow
<b>Cathode</b>	+ end of battery; less reactive metal (activity series)
<b>Anode</b>	- end of battery; more reactive metal (activity series)
Electricity	flow of e <sup>-</sup> energy due to differences in charges
Salt Bridge	allows +/- ions of salt to flow and balance +/- @ cathode/anode

\* Zn loses electrons because it is more reactive than Cu  
 Anode = more reactive metal

\* Salt bridge ions flow to "fix" charges in solutions  
 + = -



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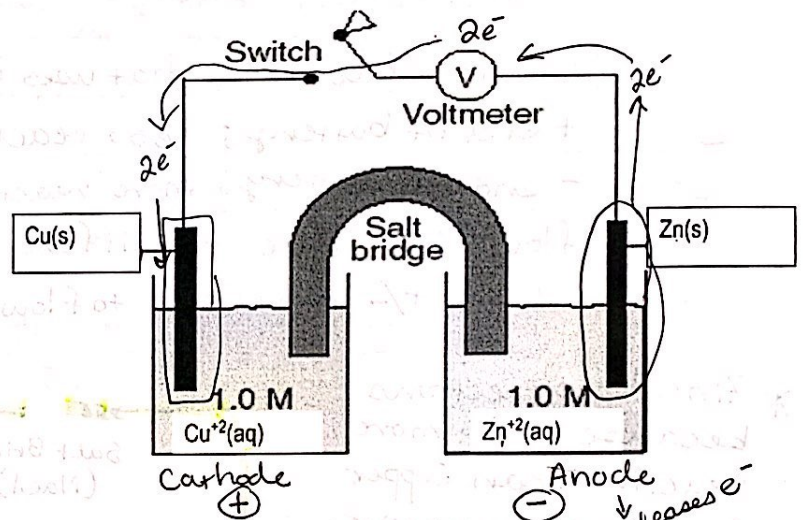
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### Practice #1

Half Reactions:

- Oxidation:  $Zn \rightarrow Zn^{2+} + 2e^-$
- Reduction:  $Cu^{2+} + 2e^- \rightarrow Cu$

1. Identify the direction of electron flow ✓
2. Circle the anode on the diagram. ✓
3. Put a box around the cathode on the diagram. ✓
4. Label each electrode whether it is + or - ✓
5. Which electrode will increase in mass? Cu
6. Which ion concentration will increase? Zn



### Practice #2

Half Reactions:

- Oxidation:  $Cu \rightarrow Cu^{2+} + 2e^-$
- Reduction:  $Ag^+ + 1e^- \rightarrow Ag (x2)$

7. Identify the direction of electron flow ✓
8. Circle the anode on the diagram. ✓
9. Put a box around the cathode on the diagram. ✓
10. Label each electrode whether it is + or - ✓
11. Which electrode will increase in mass? Ag
12. Which ion concentration will increase? Cu

