NOTES #9/Aq Chem E/Oxidation & Reduction/Ap Chem

III. Diagraming Redox reactions

** Like I said before, Redox reactions are all about ELECTRON TRANSFERS!!

a. OXIDATION: the process of _____ electrons.

b. REDUCTION: the process of _____ electrons.

*** Just remember,

OIL RIG or, LEO says GER

** We can determine what's going to be oxidized or reduced by considering changes in oxidation #.

ex: Zn (s) + CuSO4 (aq) --------> ZnSO4 (aq) + Cu (s)

c. HALF-REACTIONS - writing the oxidation rxn and the reduction rxn of a Redox rxn separately.

OXIDATION:

REDUCTION:

_____

** Two half reactions ADD UP to equal the balanced overall equation.

** THE NUMBER OF ELECTRONS LOST (through oxidation) MUST _____

THE NUMBER OF ELECTRONS GAINED (through the reduction reaction).

d. More terminology.

Oxidizing Agent - What ever "species" is being _____.
Which ever ion/molecule is _____ electrons, allowing for something else to be oxidized.

- Which "species" above is the oxidizing agent? _____

Reducing Agent - What ever "species" is being _____.
Which ever ion/molecule is _____ electrons, causing something else to gain e- or to be reduced.

- Which "species" above is the reducing agent? _____

e. Let's try another example....ELECTROLYSIS OF WATER VIA THE HOFMAN APPARATUS

- What is electrolysis? _____

A **B**

Observation/:
Assumptions

Turn Observations in HALF REACTIONS

A: _____ Is this Reduction or Oxidation?

B: _____ Is this Reduction or Oxidation?