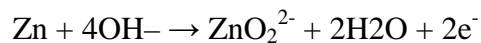
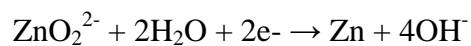
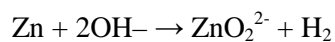




## Zinc Plating of Copper Pennies

**Caution** today you will be working with real chemicals. You **MUST WEAR SAFETY GOOGLES AT ALL TIMES**. No excuses!!!!. This activity requires you to be situation aware and to be responsible. Any irresponsible behavior viewed by the teacher or the MSU-Fellows will result in the end of your participation.

1. Turn on the hotplate and let it warm up. (Be careful and remember that it is on and hot!)
2. Place the pennies in the beaker along with zinc and zinc oxide.
3. Ask the teacher or the Fellows for sodium hydroxide solution (NaOH).
4. Once NaOH is in your beaker, place it on the hot plate and occasionally stir the contents. Over a couple of minutes the pennies will become silver (plated with zinc).
5. Once you are happy with the color of your pennies ask for assistance with the next step.



Complete the following diagram

