<u>Virtual Lab – Creating a Metal Activity Series</u>

Complete the following doc using the link below.

The metal activity link is:

https://teachchemistry.org/classroom-resources/metals-in-aqueous-solutions-simulation

Activity 1 – Reaction of Magnesium, Zinc, Copper, and Silver

Observations:

Did Mg react with Zn²⁺ Yes, Cu²⁺ Yes, Ag⁺ Yes?

Did Zn react with Mg²⁺ No, Cu²⁺ Yes, Ag⁺ Yes?

Did Cu react with Mg²⁺ No, Zn²⁺ No, Ag⁺ Yes

Did Ag react with Mg²⁺ No, Zn²⁺ No, Cu²⁺ No?

Based on these observations, create a metal activity series with the four metals, with the most reactive metal at the top.

Mg - Magnesium

Zn - Zinc

Cu - Copper

Ag - Silver

Activity 2 – Reaction of Iron, Tin, Lead, Nickel

Observations:

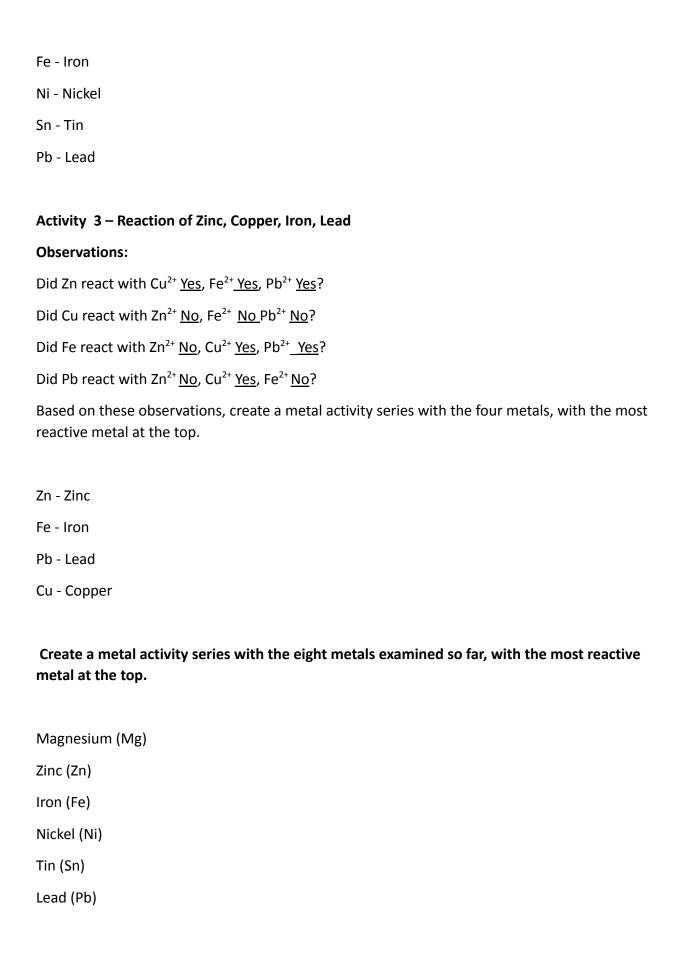
Did Fe react with Sn²⁺ Yes, Pb²⁺ Yes, Ni²⁺ Yes?

Did Sn react with Fe²⁺ No, Pb²⁺ Yes, Ni²⁺ No?

Did Pb react with Fe²⁺ No, Sn²⁺ No, Ni²⁺ No?

Did Ni react with Fe²⁺ No, Sn²⁺ Yes, Pb²⁺ Yes?

Based on these observations, create a metal activity series with the four metals, with the most reactive metal at the top.



H+ - HydrogenCopper (Cu) Silver (Ag)

Part 4 – Reaction of Tin, Zinc, Nickel, Copper, Lead, Iron with H⁺

Observations:

Did Sn react with H⁺ Yes?

Did Zn react with H⁺ Yes?

Did Ni react with H⁺ Yes?

Did Cu react with H⁺ No?

Did Pb react with H⁺ Yes?

Did Fe react with H⁺ Yes?

Place H⁺ in the appropriate spot in your activity series, based on the above observations.