Name _____ Mod_____ Student Number_____

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Lab # _____ **Zinc**

Purpose: In this laboratory exercise you will: (a) make note of the physical characteristics of the element zinc, (b) collect and identify a gas produced during a chemical reaction between zinc and hydrochloric acid

Materials: zinc, hydrochloric acid (HCl), 10 ml graduated cylinder, ring stand, 3 test tubes, gas delivery tube, bucket, water, burner, wood splint, safety glasses, laboratory apron, class notes

Procedure: zinc - physical properties (Complete the following on the back of this sheet.)

a. symbol
b. atomic number
c. atomic weight
d. state
e. color code
f. metal/non-metal
g. period
h. group
i. number of protons
j. number of neutrons
k. number of electrons
l. atomic diagram

Reaction with hydrogen chloride (HCl)

1. Arrange your equipment for collecting a gas by water displacement.

2. Add 10 ml HCl to a test tube held in a clamp on the ring stand and connect the gas delivery tube. Drop the zinc into the acid and collect several test tubes of the gas released during the reaction.

3. Test the collected gas with both glowing and flaming splints. <u>DO NOT UNDER ANY CIRCUMSTANCES ATTEMPT TO IGNITE THE GAS AT THE DEVILERY TUBE</u>

Results: glowing splint test _____ gas released is _____

flaming splint test _____

*** Diagram of laboratory apparatus for collecting gas (label all parts)