

The Reaction Between Zinc and Hydrochloric Acid

Science 9

Name: _____

Materials

- Medium test tube
- Large test tube
- Test tube rack
- Bunsen burner
- Striker
- Wooden splint
- Zinc Metal
- Hydrochloric Acid

Safety: List three safety considerations to be aware of during this lab

Procedure

1. Gather your materials
2. Fill the medium test tube $\frac{1}{3}$ full with hydrochloric acid
3. Drop in one piece of zinc metal
4. Place the large test tube upside down over the medium test tube to collect the gas
5. Observe the reaction
6. Light a bunsen burner and use it to light a wooden splint
7. Lift the large test tube keeping the opening pointed down
8. Place the burning splint at the opening of the upside down test tube
9. Observe the reaction
10. Clean up:
 - a. Empty test tubes into the waste containers
 - b. Wash test tubes with soapy water to remove soot residue. Rinse in acid rinse containers. Rinse with tap water
 - c. Return all equipment to its original location.

Sketch the procedure set up below before proceeding into the lab:

Lab Questions

1. What were the reactants in this lab?
_____ and _____
2. What did you observe when the zinc was added to the hydrochloric acid?
3. Did the temperature of the test tube change during the reaction? _____ If so, did it get hotter or colder? _____
4. What did you observe when the burning splint was placed into the larger test tube?
5. What gas do you think was produced during this reaction? _____
6. Why was it important to keep the large test tube upside down before inserting the burning splint.

Study Questions

1. Draw the Bohr models below:

Hydrogen Atom	Hydrogen Ion	Zinc Atom
Chlorine Atom	Chlorine Ion	

2. Name ZnCl: _____