

# Lab Observation Report #1

## Exploring the reactions of acids with metals

Name: **Answer key**

Grade 8 ( )

Date: **/11/2022**

In this lesson you will investigate reactions of different metals with Diluted HCl followed by a demonstration of the reaction between metals and concentrated HCl.

**1- Diluted HCl with different metals.**

Concentration of HCl: **\_ 0.1 M \_**

Record your observation in the table below

Metal	Observation when acid added
<b>Zinc</b>	<b>Bubbles showed</b>
<b>Iron</b>	<b>Little bubbles</b>
<b>Copper</b>	<b>No bubbles</b>
<b>Calcium</b>	<b>Vigorous bubbles</b>
<b>Magnesium</b>	<b>Bubbles showed</b>

List metals in order from most reactive to least reactive.

**Calcium > Magnesium > Zinc > Iron > Copper**

**2- Concentrated HCl with different metals**

Concentration of HCl: **\_ 3 M \_**

Record your observation in the table below

Metal	Observation when acid added
<b>Zinc</b>	<b>Bubbles showed</b>
<b>Iron</b>	<b>Little bubbles</b>
<b>Copper</b>	<b>No bubbles</b>
<b>Calcium</b>	<b>Vigorous bubbles</b>
<b>Magnesium</b>	<b>Vigorous bubbles showed</b>



How can we test the presence of Hydrogen gas?

**The pop test**

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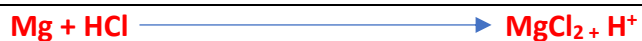
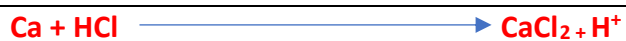
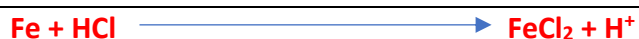
What conclusions can you make out?

**The more concentrated the acid is, the strongest the reaction with the metal is.**

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Write an equation for each of the reactions you observed.



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