Answers

Name _____ Homework 

				Show the one OR MORE particles it	

metals form CATIONS (Mg^{2+}) (Na^{+})

that means it's probably an acid, H^{+} Breaks off

if ions form in water (+) (−) it conducts electricity

Answers

Name_____ Homework 

Compound	Metal Present?	H on the left?	Is it an acid?	Show the one OR MORE particles it makes when dissolved in water (you can often just chop off the metal part from the left OR you may like using a table of common ions for help)	Is it an electrolyte?
NaOH	yes	NO	NO	Na^+ OH^-	yes
HCl	No	Yes	yes	H^+ Cl^-	yes
KNO_3	yes	NO	NO	K^+ NO_3^-	yes
HNO_3	No	yes	yes	H^+ NO_3^-	yes
HBr	NO	yes	yes	H^+ Br^-	yes
KCl	yes	NO	NO	K^+ Cl^-	yes
CO_2	NO	NO	NO	just Co_2	NO
NaBr	yes	NO	NO	Na^+ Br^-	yes
HCH_3COO	NO	yes	YES	H^+ CH_3COO^-	yes
NaF	yes	NO	NO	Na^+ F^-	yes
HF	NO	yes	YES	H^+ F^-	yes
CaO	yes	NO	NO	Ca^{2+} O^{2-}	yes
CaF_2	yes	NO	NO	Ca^{2+} F^- F^-	yes

1. On the back, make three lists titled “acids”, "bases", "neither". Fill up the lists by *copying the mystery numbers* from things you find on the wall onto the back of this sheet.

We have a chemistry Quiz tomorrow mostly over the Car sheet.

See me: Ozi, Reynaldo, Shawn, Dominic, Rayonna, Stephanie, Alysha, Karl

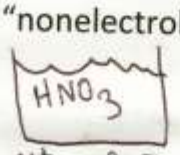
Purpose:

How do we show what acids do in water?

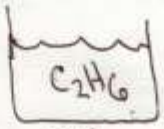
WARMUP::

#1

Under each cup write the pieces it breaks into. Then write "electrolyte" or "nonelectrolyte"



H^+ NO_3^-
"ELECTROLYTE"
Conducts electricity



C_2H_6
"NONELECTROLYTE"
doesn't conduct

TODAY'S AGENDA (you don't need to copy this):

a)Warmup
b)Check HW
c) Plug 120 volts into some acids and bases
d)back of room walkaround
e)Water is an acid
f) Three Reactions

#2

Show the ionization of water:

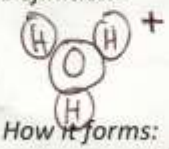
$H_2O \longrightarrow H^+ + OH^-$

~~water~~ Forms a small number of ions at 25°c

#3

What is hydronium?

Definition:



How it forms:

$H^+ + H_2O \longrightarrow H_3O^+$

"proton" water molecule "hydronium"

Two interchangeable symols:

acids make H^+

acids make H_3O^+

#4

All aqueous solutions contain

$H^+_{(aq)}$ or H_3O^+ (proton OR hydronium)

and

OH^- (hydroxide)

#5

How much [H+] is present?

Tomato juice:

Concentration of $H^+ = 0.0001 \frac{\text{moles}}{\text{Liter}}$

Gastric juice (stomach acid)

Concentration of $H^+ = 0.01 \frac{\text{mol}}{\text{L}}$

Black coffee

concentration of $H^+ = 0.00001\ M$

Sea water

concentration of $H^+ = 0.00000001\ M$

#6

Rule for measuring [H+] and [OH-]:

$0.00000000000001\,M = (\text{conc. of } H^+)\times(\text{conc. of } OH^-)$

in other words

$1\times10^{-14}\,M = [H^+][OH^-]$

THIS SHOULD ALREADY BE IN YOUR NOTES FROM YESTERDAY

	Bases	Acids
taste	bitter	sour
pH	>7	<7
paper	blue	red
feel	slippery	water
electrolyte	yes	yes