

Today:
No Quiz.
Check lab answers.

Lecture.
Book problems.

Purpose:

What do metals do when they run into non-metals?

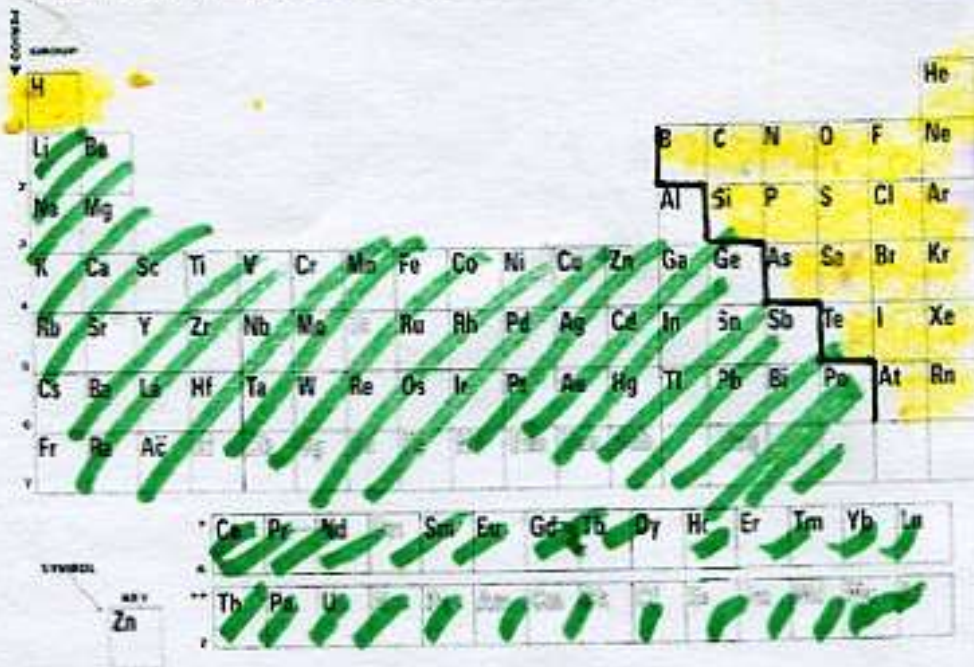
WARMUP :

#1 there are two categories:

metal elements = 

nonmetal elements = 

TABLE OF PERIODIC PROPERTIES OF THE ELEMENTS



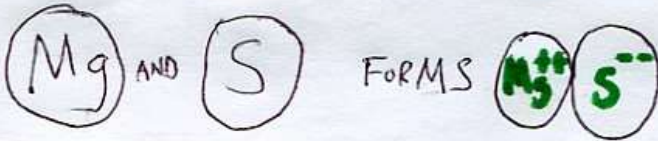
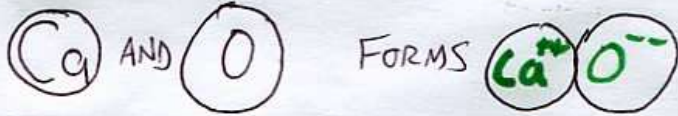
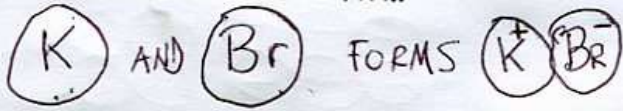
The periodic table shows elements categorized by color: green hatching for metals and yellow for non-metals. Hydrogen (H) is also highlighted in yellow. The table includes the following elements:

H																	He
Li	Be											B	C	N	O	F	Ne
Na	Mg											Al	Si	P	S	Cl	Ar
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
Rb	Sr	Y	Zr	Nb	Mo	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe	
Cs	Ba	La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn
Fr	Ra	Ac															
		* Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu			
		** Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Mn	Uu			

(Tape or staple in the handout)

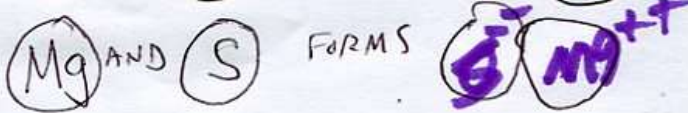
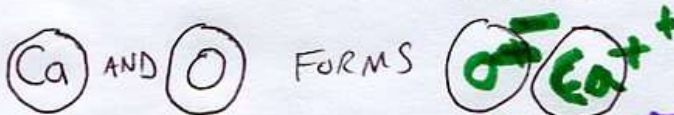
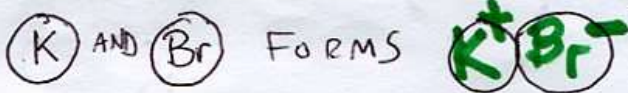
#5

Predict what would form

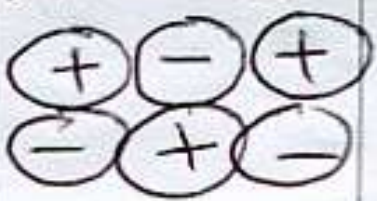



#5

Predict what would form



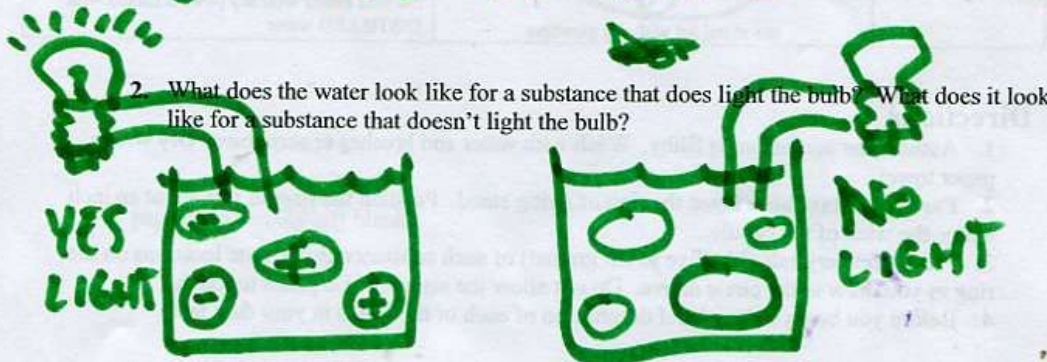
#6 How will this new substance act?

looks like	SIX PARTICLES 	SIX particles 
conducts in water?	yes	no
melts easily?	no	yes
call it this	IONIC SUBSTANCE	MOLECULAR SUBSTANCE
melting temperature	over 1000°C	-260°C to 1000°C

Prelaboratory Questions

1. What has to happen to the wires for the bulb to light?

Electricity must flow.
create a full circuit



Analysis Questions

1. Organize the substances into two groups according to similar properties.

CONDUCTS
TOUGH TO MELT : KCl, citric acid
copper sulfate

2. List the properties of each group. Are these properties chemical or physical in nature?

Group 1: tough to melt, bulb lights up

Group 2: easy to melt, no light

3. Explain what happened when you added water to the solutions that caused the bulb to light by using molecular level pictures. This video might help: www.tinyurl.com/salt-solution

