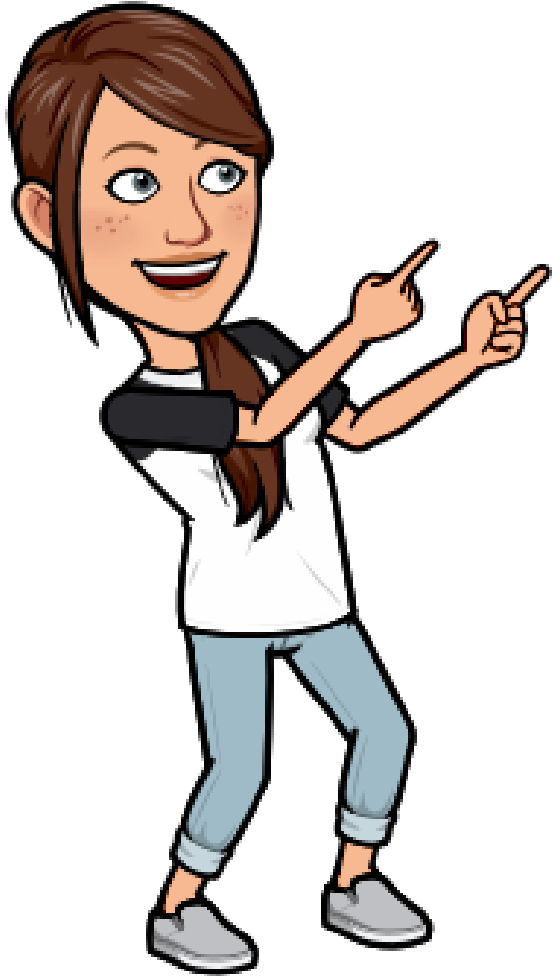


Please complete the following instructions:

1. As you come in, please use the hand sanitizer at the back lab table.
2. Find your same seat as last time...this is your **permanent seat**.
3. DO NOT move the chairs or go to a lab table.
4. Turn your computer on, log into **Zoom** and TURN OFF your video and PLUG IN your headphones.
5. **Your phone needs to be in your backpack.**
6. Put your name in the chat on Zoom.
7. **Answer the daily check-in question.**



Have you completed steps 4-7?

On Campus Expectations 2.0

BE ON TIME



Get to school on time. In between classes use your time wisely to get to the next class.

Come into class, sit in assigned seat, sign into google, and answer the check-in question.

BE PREPARED



BE PREPARED

Bring your own device if you choose. Technology should be charged and bring the cord.

Phones are off and put away inside your backpack (unless I tell you to use it for something).

UNMUTE YOURSELF

We want to hear you talk to participate. Raise your hand, unmute yourself and speak loudly so we can hear you.



BE PRESENTABLE

Wear appropriate clothing. Bring an extra mask in case you need it.



No food or drink in the classroom.

CHAT RESPONSIBLY



Raise your hand to speak in class. Type your question in the chat box for our period. Stay on topic (no side conversation)

PARTICIPATE

Stay focused! Ask and answer questions and take good notes!



Listen and show respect to peers

Virtual Expectations 2.0

BE ON TIME



Log on a few minutes early, so you are not tardy. Use your real name on the screen & answer the daily check-in question on time to not lose points.

BE PREPARED

BE PREPARED



Be in a QUIET location Technology should be charged No distractions including phones (unless you are using your phone to meet)

MUTE YOURSELF

Keep your mic on MUTE unless you have been called on

MUTE

Use headphones if you have them



BE PRESENTABLE

Wear appropriate clothing Be sure your camera is on

BE PRESENT



In order to mark you present for attendance I have to see you!

CHAT RESPONSIBLY



Raise your hand to speak Type your question in the chat box Stay on topic (no side conversation)

PARTICIPATE

LET'S PARTICIPATE



Stay focused Ask and answer questions, take good notes Listen and show respect to peers

This electron configuration periodic table must be printed and kept in your binder. You cannot use Kami to fill this out.

7 periods = 7 energy levels = "n"

1A

S = 2e⁻
1orbital

S = 1 orbital = 2e⁻ max
P = 3 orbitals = 6e⁻ max
D = 5 orbitals = 10e⁻ max
F = 7 orbitals = 14e⁻ max

Energy level, n, = # of sublevel

n = 2
2 sublevels
2s, 2p

n = 3
3 sublevels
3s, 3p, 3d

Sublevel is a # and letter, like 2s



P = 6e⁻ max / 3 orbitals

8A

Directions: Fill in the electron configuration and element symbol for each element. Follow the pattern! You will use this all semester. Then, find four colors and shade or outline the s, p, d and f regions on our periodic table.

1	2											3	4	5	6	7	8	9	10																			
1s ¹												2s ¹	2s ²	2p ¹	2p ²	2p ³	2p ⁴	2p ⁵	2p ⁶	1s ²																		
H												Li	Be	B	C	N	O	F	Ne																			
3	4											5	6	7	8	9	10	11	12																			
3s ¹												3s ²	3s ²	3p ¹	3p ²	3p ³	3p ⁴	3p ⁵	3p ⁶	He																		
Na												Mg		Al	Si	P	S	Cl	Ar																			
19	20											21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36											
4s ¹												3d ¹	3d ²	3d ³	3d ⁴	3d ⁵	3d ⁶	3d ⁷	3d ⁸	3d ⁹	3d ¹⁰	4p ¹	4p ²	4p ³	4p ⁴	4p ⁵	4p ⁶											
K	Ca											Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr											
37	38											39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54											
5s ¹												4d ¹	4d ²	4d ³	4d ⁴	4d ⁵	4d ⁶	4d ⁷	4d ⁸	4d ⁹	4d ¹⁰	5p ¹	5p ²	5p ³	5p ⁴	5p ⁵	5p ⁶											
Rb	Sr											Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe											
55	56											57	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86											
6s ¹												5d ¹	5d ²	5d ³	5d ⁴	5d ⁵	5d ⁶	5d ⁷	5d ⁸	5d ⁹	5d ¹⁰	6p ¹	6p ²	6p ³	6p ⁴	6p ⁵	6p ⁶											
Cs	Ba											La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn											
87	88											89	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118											
7s ¹												6d ¹	6d ²	6d ³	6d ⁴	6d ⁵	6d ⁶	6d ⁷	6d ⁸	6d ⁹	6d ¹⁰	7p ¹	7p ²	7p ³	7p ⁴	7p ⁵	7p ⁶											
Fr	Ra											Ac	Rf	Db	Sg	Bh	Hs	Mt	Ds	Rg	Cn	Nh	Fl	Mc	Ts	Og												
89	90											91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106											
4f ¹												4f ²	4f ³	4f ⁴	4f ⁵	4f ⁶	4f ⁷	4f ⁸	4f ⁹	4f ¹⁰	4f ¹¹	4f ¹²	4f ¹³	4f ¹⁴	5f ¹	5f ²	5f ³	5f ⁴	5f ⁵	5f ⁶	5f ⁷	5f ⁸	5f ⁹	5f ¹⁰	5f ¹¹	5f ¹²	5f ¹³	5f ¹⁴
Co	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr											

Nonmetals

← Metals



14e⁻ max / 7 orbitals

f fills before d

1s² < 2s² < 2p⁶ < 3s² < 3p⁶ < 4s² < 3d¹⁰ < 4p⁶ < 5s² < 4d¹⁰ < 5p⁶ < 6s² < 4f¹⁴ < 5d¹⁰ < 6p⁶ < 7s² < 5f¹⁴ < 6d¹⁰ < 7p⁶ = 118e⁻

Filling order - orbitals completely filled

of valence electrons = group #
Highest energy levels

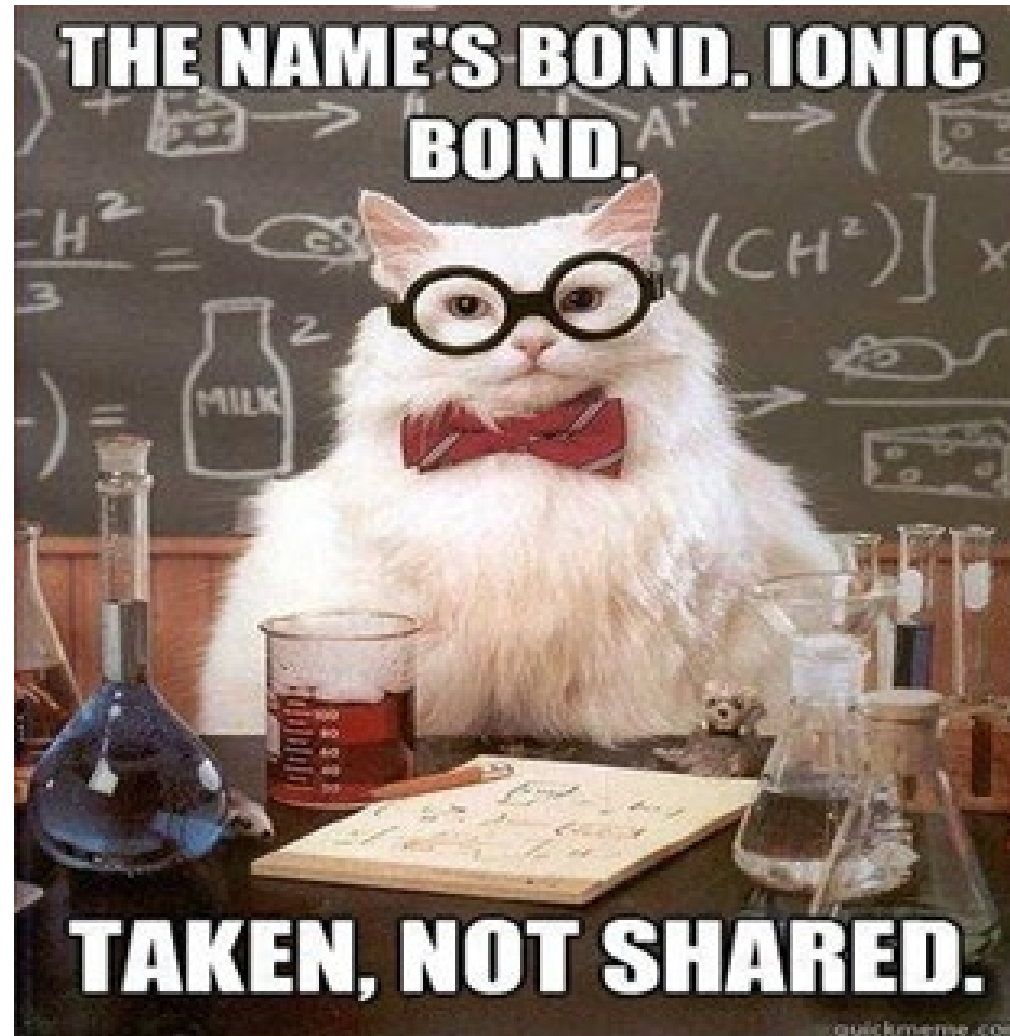
n = 5, energy level
orbital

e⁻



Go to page 4, let's
learn how to
classify and name
ionic compounds.

IS4T1- Bonding



Ionic Compounds are:

- Made up of metals (cations) and nonmetals (anions)
- Cations are positive and anions are negative; their charges will cancel in the formula.
- They are electrically neutral because the charges cancel.

Molecular Compounds are:

- Only composed of nonmetals.
- Also known as a covalent compound.
- A solid, liquid or gas at room temperatures.

Let's try some examples

Classify the following elements as ionic or molecular. Circle or highlight the metal in each example if present.

Na₂O ionic

SeO₃ molecular

FeO ionic

PCl₃ molecular

NO₂ molecular

LiCl ionic

CO molecular

C₂H₆ molecular

N₂O₄ molecular

ZnF₂ ionic

P₄O₁₀ molecular

AlCl₃ ionic

Naming Ionic Compounds

Ionic compounds are formed between an anion and cation.

Naming Rules:

1. Cation is written first in the name, the metal.
2. Anion ending gets changed to -ide, the nonmetal.
3. Drop the word ion and write the compound's name (two words).
4. The subscripts are used to make the ionic compound neutral. We will learn how to write the compounds in the next lesson.

Examples:

K_2O = potassium oxide

$NaCl$ = sodium chloride

Al_2O_3 = aluminum oxide

Only the 2nd element changes to -ide

Now you try it...

$LiBr$ Lithium bromide

AlP Aluminum phosphide

Al_2S_3 Aluminum sulfide

SrO Strontium oxide

Na_2O Sodium oxide

Mg_3P_2 Magnesium phosphide NOT phosphide, spelling counts

$CaCl_2$ Calcium chloride

BaI_2 Barium iodide

KF Potassium fluoride

All of the above examples that you named are ionic or molecular? ionic

How do you know? They contain a metal

What two elements make a compound ionic? metal & nonmetal

What elements make a compound molecular? Only nonmetals

You will now **complete pages 5-7** and **check** your answers.

Then, you will complete an Edpuzzle for HW.

If you get **dropped from Zoom** you need to come back to class or you will be marked absent.
