

Bell Ringer #27:

**Socratic Room Name:
LEVEL70WARRIOR**

Ions & Ionic Bonding

<http://drmoad.weebly.com/>

Agenda

Bell Ringer

Error Analysis

Finish Ionic Bonding Lab

Ionic Compounds

Common Ion Homework

Exit Ticket

Error Analysis

1) fluorine sodide

2) nitrate ammonium

3) MgCl_3

4) Ag_2Br_2

5) chromium phosphide

Polyatomic Ions

+1

ammonium, NH_4^+

-1

acetate, $\text{C}_2\text{H}_3\text{O}_2^-$, or CH_3COO^-

bromate, BrO_3^-

chlorate, ClO_3^-

chlorite, ClO_2^-

cyanide, CN^-

hydrogen carbonate, HCO_3^- (also called bicarbonate)

hydroxide, OH^-

hypochlorite, ClO^-

iodate, IO_3^-

nitrate, NO_3^-

nitrite, NO_2^-

permanganate, MnO_4^-

perchlorate, ClO_4^-

thiocyanate, SCN^-

-2

carbonate, CO_3^{-2}

chromate, CrO_4^{-2}

dichromate, $\text{Cr}_2\text{O}_7^{-2}$

oxalate, $\text{C}_2\text{O}_4^{-2}$

peroxide, O_2^{-2}

sulfate, SO_4^{-2}

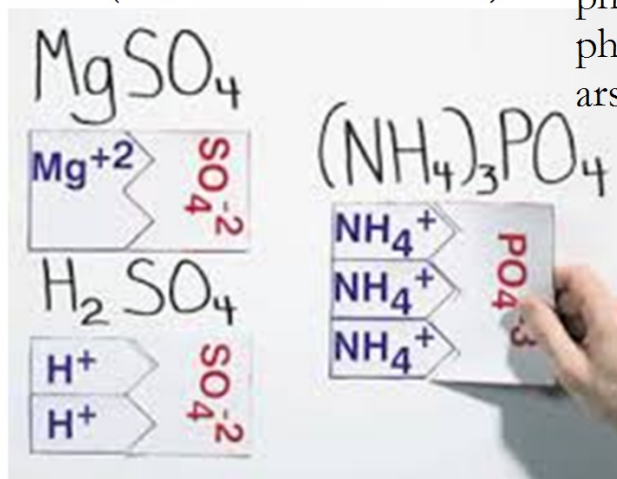
sulfite, SO_3^{-2}

-3

phosphate, PO_4^{-3}

phosphite, PO_3^{-3}

arsenate, AsO_4^{-3}



Ionic Bonding Lab

- 11. Mercury (II) Chloride**
- 12. Iron (III) Chloride**
- 13. Hydrogen Iodide**
- 14. Aluminum Oxide**
- 15. Calcium Nitrate**
- 16. Sodium Cyanide**
- 17. Aluminum Bromide**

Ionic Bonding Lab

- 18. Iron (II) Sulfate**
- 19. Lithium Fluoride**
- 20. Silver Carbonate**
- 21. Barium Acetate**
- 22. Ammonium Nitrate**
- 23. Zinc Oxide**
- 24. Tin (IV) Oxide**

Ionic Bonding Lab

25. Sodium Arsenate
26. Calcium Oxide
27. Cadmium (II) Chloride
28. Tin (II) Chloride
29. Sodium Phosphate
30. Potassium Chromate
31. Iron (III) Nitrate

Ionic Bonding Lab

- 32. Chromium (I) Iodide**
- 33. Radium Bromide**
- 34. Ammonium Phosphate**
- 35. Copper (I) Sulfate**
- 36. Ammonium Hydroxide**
- 37. Hydrogen Iodate**
- 38. Calcium Hypochlorite**
- 39. Sodium Oxalate**
- 40. Silver Chloride**

Whiteboards: Write Chemical Formula Given Names

Sodium Chloride

Potassium Oxide

Lithium Nitride

Strontium Bromide

Calcium Sulfide

Beryllium Chloride

Magnesium Phosphide

How many ionic compounds are there?

Atomic Ions
Dominant form on top

1A	2A											3A	4A	5A	6A	7A	0	
H ⁺																		He
Li ⁺	Be ²⁺											B	C	N ³⁻	O ²⁻	F ⁻	Ne	
Na ⁺	Mg ²⁺	3B	4B	5B	6B	7B	8B				1B	2B	Al ³⁺	Si	P ³⁻	S ²⁻	Cl ⁻	Ar
K ⁺	Ca ²⁺	Sc ³⁺	Ti ³⁺ Ti ⁴⁺	V ³⁺ V ⁵⁺	Cr ³⁺ Cr ²⁺	Mn ²⁺ Mn ⁴⁺	Fe ²⁺ Fe ³⁺	Co ²⁺ Co ³⁺	Ni ²⁺ Ni ³⁺	Cu ²⁺ Cu ⁺	Zn ²⁺	Ga ³⁺	Ge ⁴⁺	As ³⁻	Se ²⁻	Br ⁻	Kr	
Rb ⁺	Sr ²⁺	Y ³⁺	Zr ⁴⁺	Nb ⁵⁺ Nb ³⁺	Mo ⁶⁺	Tc ⁷⁺	Ru ³⁺ Ru ⁴⁺	Rh ³⁺	Pd ²⁺ Pd ⁴⁺	Ag ⁺	Cd ²⁺	In ³⁺	Sn ⁴⁺ Sn ²⁺	Sb ³⁺ Sb ⁵⁺	Te ²⁻	I ⁻	Xe	
Cs ⁺	Ba ²⁺	La ³⁺	Hf ⁴⁺	Ta ⁵⁺	W ⁶⁺	Re ⁷⁺	Os ⁴⁺	Ir ⁴⁺	Pt ⁴⁺ Pt ²⁺	Au ³⁺ Au ⁺	Hg ²⁺ Hg ⁺	Tl ⁺ Tl ³⁺	Pb ²⁺ Pb ⁴⁺	Bi ³⁺ Bi ⁵⁺	Po ²⁺ Po ⁴⁺	At ⁻	Rn	
Fr ⁺	Ra ²⁺	Ac ³⁺																

Naming Ionic Compounds

NaCl

Na₂O

CaF₂

MgO

CuCl

CuCl₂

Video

<https://www.youtube.com/watch?v=mlRhLicNo8Q>

Ion Naming Worksheet

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Exit Ticket #27:

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Ionic Compounds