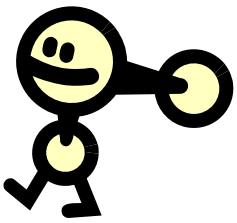
Bond with a Classmate

Directions:



1) Select one tag. Are you a positive **(+)** or negative **(-)** ion?
2) Are you a **metal, metalloid, or non-metal**?
3) Record your info into the data table 3 times, for the 3 different bonds you will make.
4) Find one ion with an **opposite** charge.
5) In the data table, write your partner's element and charge. Categorize their element as a metal, metalloid, or non-metal.
6) Write the compound into the data table. **Criss-Cross** your oxidation numbers to make them subscripts. **Reduce** if needed. (Remember, the **positive** ion is written first.)
7) Determine the name of your new compound with the **–ide** ending.
8) Find a new partner.
9) After your 3rd bond, have your work checked.
10) Your teacher will then give you a new tag with an oppositely charged ion. Repeat steps 1-9.

Figure 19.18: *The criss-cross method is a simple way to determine the chemical formula of a compound.*

Cut along dotted lines and paste into lab journal

Analysis and Results:

1) What is a binary compound?
2) What does the (+) or (-) oxidation number tell you about an ion?
3) Which element gets the **–ide** ending?
4) What is a subscript? What does it tell you?

Conclusion: 2-3 complete sentences on what you learned by doing this activity.

www.middleschoolscience.com 2009
This is a modified lesson from the original posted on sciencespot.net

(+) Ion	Metal Metalloid NonMetal	(-) Ion	Metal Metalloid NonMetal	Formula	Name
Ca^{+2}	metal	Cl^{-1}	Non Metal	$CaCl_2$	Calcium Chloride
Mg^{+2}	metal	Br^{-1}	Non-metal	$MgBr_2$	Magnesium Bromide

www.middleschoolscience.com 2009
This is a modified lesson from the original posted on sciencespot.net