NAMING WITH POLYATOMIC IONS

Many chemical names have what we call radicals (polyatomic ions) in them. Radicals are simply groups of atoms that carry a charge with them. There are many radicals, and you can look for tables in your text and the Table of Common Ions handout. Listed below are some examples....

OH^{-1}

NO_3^{-1}

NO_2^{-1}

SO_4^{-2}

SO_3^{-2}

CO_3^{-2}

CrO_4^{-2}

PO_4^{-3}

The only common positively charged polyatomic ion or radical is the ammonium group... NH_4^{+1}. When naming simple compoundsthat contain a radical simply name the entire radical using its group name rather than naming every element in it. For example...

$CaSO_4$ is calcium sulfate...

don't try to name it calcium sulfur oxide or some similar way... the entire SO_4 is named with its group name... sulfate.

Na_3PO_4 is sodium phosphate...

don't try to name this sodium phosphorus oxide or some similar way... the whole PO_4 group is called a phosphate.

STUDENT PRACTICE

1. See if you can give the names for the following compounds...

$CaSO_4$	
$LiNO_3$	
Ag_2SO_4	
$BaCrO_4$	
$NaNO_3$	
$(NH_4)_2CO_3$	
$NaHCO_3$	
$Ca_3(PO_4)_3$	
$Al(OH)_3$	
$Cu(C_2H_3O_2)_2$	
Ag_2CrO_4	