Monatomic Ions

Roman numeral for blank metals
or
All metal ions have a Roman Numeral in their name except those in group I, II and the triangle

(-ide for monatomic anions)

+1																	0
+1	+2											+3		-3	-2	-1	0
+1	+2											+3		-3	-2	-1	0
+1	+2										+2	+3		-3	-2	-1	0
+1	+2									+1	+2	+3			-2	-1	0
+1	+2															-1	0
+1	+2																0

Polyatomic Ions

use ( ) around the ion if there is more than one in formula

–ate	This ending is given to the most common combination of the element, oxygen and charge. **Memorize** these ions! They do tend to run in families however nitrate is not like the rest of group 15 oxy-ions.
–ite	one less O, same charge as the "-ate" ion
hypo– –ite	two less O's, same charge as the "-ate" ion
per– –ate	one more O, same charge as the "-ate" ion

Common Polyatomic Ions				
+1	+2	–1	–2	–3
ammonium, NH_4^+ hydronium, H_3O^+	mercury(I), Hg_2^{+2}	acetate, CH_3COO^- or $C_2H_3O_2^-$ bicarbonate or hydrogen carbonate, HCO_3^- bisulfate or hydrogen sulfate, HSO_4^- bromate, BrO_3^- chlorate, ClO_3^- chlorite, ClO_2^- cyanide, CN^- hydroxide, OH^- hypochlorite, ClO^- iodate, IO_3^- nitrate, NO_3^- nitrite, NO_2^- perchlorate, ClO_4^- permanganate, MnO_4^- thiocyanate, SCN^-	carbonate, CO_3^{-2} chromate, CrO_4^{-2} dichromate, $Cr_2O_7^{-2}$ oxalate, $C_2O_4^{-2}$ peroxide, O_2^{-2} silicate, SiO_3^{-2} sulfate, SO_4^{-2} sulfite, SO_3^{-2} tartrate, $C_4H_4O_6^{-2}$ tetraborate, $B_4O_7^{-2}$ thiosulfate, $S_2O_3^{-2}$	phosphate, PO_4^{-3} arsonate, AsO_4^{-3}

Please don't procrastinate memorizing these ions.