

## Solubility Song

(Sung to the tune of "Puff the Magic Dragon")  
for writing net ionic equations in chemical reactions

Sodium ( $\text{Na}^+$ ), Potassium ( $\text{K}^+$ ), Ammonium ( $\text{NH}_4^+$ ) salts,  
Whatever they may be,  
Can always be depended on for solubility.

When asked about the Nitrates ( $\text{NO}_3^-$ ),  
The answer's always clear,  
They each and all are soluble  
Is all we want to hear.

Most every Chloride's ( $\text{Cl}^-$ ) soluble,  
At least we've always read,  
Save Silver ( $\text{Ag}^+$ ), Mercurous Mercury ( $\text{Hg}_2^{+2}$ )  
and slightly Chloride of Lead ( $\text{Pb}^{+2}$ ).

Every single Sulfate ( $\text{SO}_4^{-2}$ ),  
Is soluble 'tis said,  
Save Calcium ( $\text{Ca}^{+2}$ ) and Barium ( $\text{Ba}^{+2}$ )  
and Strontium ( $\text{Sr}^{+2}$ ) and Lead ( $\text{Pb}^{+2}$ ).

Hydroxides ( $\text{OH}^-$ ) of metals won't dissolve,  
That is, all but three,  
Potassium ( $\text{K}^+$ ), Sodium ( $\text{Na}^+$ ) and Ammonium ( $\text{NH}_4^+$ )  
Dissolve quite readily.

And then you must remember,  
That you must not forget,  
Calcium ( $\text{Ca}^{+2}$ ), Strontium ( $\text{Sr}^{+2}$ ), Barium ( $\text{Ba}^{+2}$ )  
Dissolve a little bit.

The Carbonate's ( $\text{CO}_3^{-2}$ ) insoluble,  
It's lucky that it's so,  
Or else our marble ( $\text{CaCO}_3$ ) buildings  
Would melt away like snow.