SIMPLE SOLUBILITY RULES

1. Salts containing group 1 cations and \( \text{NH}_4^+ \) are soluble. There are some exceptions with \( \text{Li}^+ \), such as \( \text{Li}_3\text{PO}_4 \).

2. Nitrates, acetates, and perchlorates are soluble.

3. Chlorides, bromides, and iodides are soluble. Those containing \( \text{Ag}^+ \), \( \text{Pb}^{2+} \), and \( \text{Hg}_2^{2+} \) are not.

4. Most sulfates are soluble. Those containing \( \text{Ba}^{2+} \), \( \text{Sr}^{2+} \), \( \text{Ca}^{2+} \), \( \text{Pb}^{2+} \), and \( \text{Ag}^+ \) are not.

5. Most phosphates, carbonates, chromates, hydroxides, oxides and sulfides are insoluble.

6. Insoluble hydroxides, oxides, sulfides, and salts containing weak bases, are generally more soluble in acid.

7. All acids are soluble.