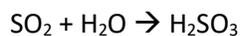
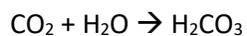


Classwork – May -8

**Oxides** are chemical compounds that have two elements in their composition. One of these two elements must be oxygen.

There are acidic and basic oxides.

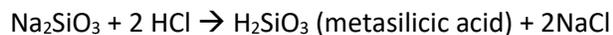
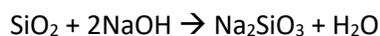
Most acidic oxides are soluble:



Some are not:



*All acidic oxides are soluble in bases:*



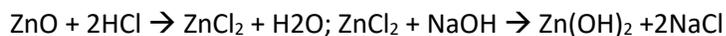
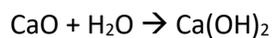
An acid corresponds to each acidic oxide.

General definition of acidic oxides is:

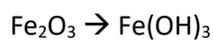
*“Oxides that interact with bases forming salt and water are called **acidic oxides**”*

Acidic oxides are mostly formed by non-metals. Some metals can form acidic oxides in their highest oxidation state: Cr(VI)  $\rightarrow$   $\text{H}_2\text{CrO}_4$  chromic acid; Mn (VII)  $\rightarrow$   $\text{HMnO}_4$  permanganic acid

**Basic oxides** are formed only by metals. Some react with water, some don't. All basic oxides react with acids.



To each basic oxide corresponds a base:



Oxides that react with acids forming salt and water are called **basic oxides**.

In their lowest oxidation state Cr(II) and Mn (II) form based oxides:

$\text{CrO} \rightarrow \text{Cr(OH)}_2$  (unstable, transforms to Cr(III))

$\text{MnO} \rightarrow \text{Mn(OH)}_2$