**Stoichiometry Review**

**Measure that Element—Measure that Compound—Measure that Solution**

**Mole Hill**

 MOLE

# of PARTICLES MASS (g)

**Mole Box**

Grams/Particles of A Grams/Particles of B

 Moles of A Moles of B

**Point to Remember Even If You Don’t Know Why**

1 mole of any **GAS** will occupy a volume of 22.4 L at STP—standard temperature and pressure—0 oC and 101.3 kPa

**2 Na ( ) + 2 H2O ( ) 🡪 2 NaOH ( ) + H2 ( )**

**1 Step Problem**

3.6 moles of water 🡪 # moles of sodium hydroxide

**2 Step Problem**

2.5 g of hydrogen 🡪 # moles of water

**3 Step Problem**

0.75 g of Na 🡪 # of molecules of water

**“3.5” Step Problem**

0.65 g of sodium 🡪 # of mL of hydrogen gas at STP