Grams to Mole Conversions

Target: Today I will be able to convert between grams and moles of an element AND of a molecule.

Pg. 121

How Big is a Mole?

- Read the problem you chose aloud
- Have work and stamp sheet out

Moles to grams conversion practice:

- What is the mass in grams of a sample containing 1.38mol N?

<u>Given:</u>

1.38mol N

14.01g/1mol N

<u>Find:</u>

____g N

Grams to mole conversion:

- How many moles of Mg correspond to 12.15g Mg?

<u>Given:</u>

12.15g Mg

24.31g/1mol Mg

<u>Find:</u>

____mol Mg

Molar Mass for molecules:

- The molar mass of a molecule is found by adding the masses of the elements present in a mole of the molecule.

- What is the molar mass of H_2O?
  - In 1 mol of H_2O there is 1 mol of O and 2 mol of H

Molar Mass H_2O = 16.00g/mol O + 1.01 g/mol H + 1.01g/mol H

OR

Molar Mass H_2O = 16.00g/mol O + 2*(1.01 g/mol H)

Practice

- What is the molar mass of
  - Cl_2
  - $KClO_3$
  - $Ba(OH)_2$

Homework

- Finish *Formula Mass and Molar Mass* worksheet. **Pg. 118**
  - Just do molar mass, NOT formula mass.

- SSM Final Draft, hardcopy Due Friday, 2/7

- Permission Slips Due Tomorrow (7^{th} period)