**SURVEY**

ChapterTitle: Chemical formulas and chemical compositions \_

Section Title: Using Chemical Formulas Pp #'s: 237 to 244

What are the Sub-section Titles:

|  |  |
| --- | --- |
| Describe Four Illustrations | |
| 1.Image of nitrogen in a balloon, water in a cylinder, CdS, and NaCl | 2.Image of coverting mass of compound to amount of compound |
| 3.Image of converting the mass of compound to number of atom | 4.Image of converting amount of compound to number of molecules |

|  |  |
| --- | --- |
| 1. | Formula Masses |
| 2. | Molar Masses |
| 3. | Percentage Composition |
| 4. |  |
| 5. |  |
| 6. |  |

List at least THREE check point questions from the section.

|  |  |
| --- | --- |
| 1. | What is the total mass in grams of carbon in 33 g of ibuprofen? |
| 2. | Find the percentage composition of copper (I) sulfide. |
| 3. | Find the mass in grams of 2.50 mol of oxygen gas. |

Key Terms: List key terms from the Section Title.

Key Term

Sentence from the Text (NOT the definition)

A.Formula mass the sum of all atomic masses of all atoms in formula \_

B. Molar Mass a substance’s molar mass is equal to the mass in grams of one mole

c. Percentage composition percentage by mass of each element in a compound

Make an analogy of ONE Key term: miles are to feet as meters are to centimeters

The formula mass is to total amount of atomic masses as sum is total amount of numbers added

**QUESTION READ**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Re-write each sub-section title as question  AND Re-write Checkpoints Questions here | Pages to Read | Answer EACH question | Page# of answer |  |
|  | What is percentage composition? | Pg 243 | Percentage composition is the percentage by mass of each element in a compound | Pg 243 |  |
|  | Find the percentage composition of copper (I) sulfide. | Pg 243 | Cu = 79.85% S = 20.15% | Pg 243 |  |
|  | Find the mass in grams of 2.50 mol of oxygen gas. | Pg 240 | 75 g | Pg 241 |  |
|  | What is the total mass in grams of carbon in 33 g of ibuprofen? | Pg 241 | 25 g of carbon | Pg 242 |  |
|  | What are formula masses? | Pg 237 | Formula masses are the total sum of the average atomic masses of the atoms that are presented in the formula of any molecule, formula unit, or ion. | Pg 237 |  |
|  | What are molar masses? | Pg 238 | Molar masses are the mass in grams of one mole of the substance. | Pg 238 |  |
|  |  |  |  |  |  |
|  | Summarize your notes by writing ONE paragraph (Hint: Read the Section Summary at end of the chapter):  Formula mass, molar mass, and percentage composition can be calculated from the chemical formula for a compound. The percentage composition of a compound is the percentage by mass of each element in the compound. Molar mass is used as a conversion factor between amount in moles and mass in grams of a given compound or element. | | | |  |

**RELATE**

List **THREE MAIN CONCEPTS** from this section (Hint: Look at the "KEY CONCEPTS".)

|  |  |
| --- | --- |
| 1. | Formula masses |
| 2. | Molar masses |
| 3. | Percentage composition |

Write one paragraph where you RELATE concepts to each other.

Molar mass, molar mass, and percentage composition can be calculated from the chemical formula of a compound, ion, or formula unit. Molar mass is used a conversion factor between amount in moles and mass in grams of a given compound or element.

**REVIEW REFLECT**

Summarize EACH sub-section in a sentence Write any concepts you still have questions about.

1.

Have it your way

1. Formula mass is the sum of the average atomic

masses of all atoms represented in its formula.

2.

2. Molar mass is the mass in grams of one mole of a

substance.

3.

3.Percentage composition is the percentage by mass of

each element in a compound.

**SUMMARIZE:** Using key terms, key points from the *text,* and references to your selected illustrations, write a paragraph summary of the Chapter-Section.

Formula mass, molar mass, and percentage composition can be calculated from the chemical formula for a compound. The percentage composition of a compound is the percentage by mass of each element in the compound. Molar mass is used as a conversion factor between amount in moles and mass in grams of a given compound or element. Formula mass is the sum of the average atomic masses of all atoms represented in its formula. Molar mass is the mass in grams of one mole of a substance. Percentage composition is the percentage by mass of each element in a compound.