|  |  |
| --- | --- |
| **Chemical Compounds** | Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

**WHAT IS A COMPOUND? *Use your phones to fill in below!***

* Scientific Definition:
* In your own words:
* Examples:

**WHAT IS A CHEMICAL FORMULA?**

|  |
| --- |
| ***Each element has a unique atomic mass.******Each compound has a unique molecular mass.*** |

**WHAT IS MOLECULAR MASS?**

* Sum of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of each \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that makes up the compound.

* Unit = unified atomic mass unit = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**NOTE: WE ARE NOT INTERESTED IN MOLECULAR MASS! *We can’t weigh individual Molecules!***

***Therefore we use 🡪* MOLAR MASS!**

*
* Expressed as either: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

|  |  |
| --- | --- |
| Example:What is the molar mass of NaCl?* # of Na atoms = \_\_\_\_\_\_\_\_\_\_\_\_
* Atomic mass of Na = \_\_\_\_\_\_\_\_\_\_\_\_
* # of Cl atoms = \_\_\_\_\_\_\_\_\_\_\_\_
* Atomic mass of Cl = \_\_\_\_\_\_\_\_\_\_\_\_

 * Molar mass = \_\_\_\_\_\_\_\_\_\_\_\_
 | Example:What is the molar mass of H2O?* # of H atoms = \_\_\_\_\_\_\_\_\_\_\_\_
* Atomic mass of H = \_\_\_\_\_\_\_\_\_\_\_\_
* # of O atoms = \_\_\_\_\_\_\_\_\_\_\_\_
* Atomic mass of o = \_\_\_\_\_\_\_\_\_\_\_\_

 * Molar mass = \_\_\_\_\_\_\_\_\_\_\_\_
 |
| Example:What is the molar mass of MgCl2?* # of Mg atoms = \_\_\_\_\_\_\_\_\_\_\_\_
* Atomic mass of Mg = \_\_\_\_\_\_\_\_\_\_\_\_
* # of Cl atoms = \_\_\_\_\_\_\_\_\_\_\_\_
* Atomic mass of Cl = \_\_\_\_\_\_\_\_\_\_\_\_

 * Molar mass = \_\_\_\_\_\_\_\_\_\_\_\_
 | Example: What is the molar mass of Al2(SO4)3?* # of Al atoms = \_\_\_\_\_\_\_\_\_\_\_\_
* Atomic mass of Al = \_\_\_\_\_\_\_\_\_\_\_\_
* # of S atoms = \_\_\_\_\_\_\_\_\_\_\_\_
* Atomic mass of S = \_\_\_\_\_\_\_\_\_\_\_\_
* # of O atoms = \_\_\_\_\_\_\_\_\_\_\_\_
* Atomic mass of O = \_\_\_\_\_\_\_\_\_\_\_\_

 * Molar mass = \_\_\_\_\_\_\_\_\_\_\_\_
 |

**Practice Problem I: (Find the Molar Mass)**

|  |  |
| --- | --- |
| 1. What is the molar mass of Na2Cr2O7?
 | 1. What is the molar mass of iron (III) sulphide?
 |
| 1. What is the molar mass of ammonium nitrate?
 | 1. What is the molar mass of propane, C3H8?
 |

**Practice Problem 2: (Find the Molar Mass)**

|  |  |
| --- | --- |
| **Compound** | **Molar Mass (g/mol)** |
| Na2O |  |
| Cu(NO3)2 |  |
| Calcium chloride |  |
| Hydrogen gas |  |
| Iron (II) oxide |  |
| Iron (III) oxide |  |
| Copper (I) nitride |  |
| Potassium permanganate |  |
| KBr |  |
| Nitrogen gas |  |
| Argon gas |  |
| H2SO4 |  |