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| **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?**

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| ***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: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

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| 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)**

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| 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)**

|  |  |
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| **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 |  |