

ATOMS, MOLECULES AND RADICALS

SUBJECT-CHEMISTRY

CHAPTER NO- 4

Molecular formula of a compound and writing a chemical formula

PERIOD-5

CHANGING YOUR TOMORROW



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LEARNING OBJECTIVE

Students will be able to

- Know about the molecular formula of a compound
- Get aware of the steps of writing a chemical formula.
- Can write the chemical formula using **CRISS-CROSS METHOD**



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WARM UP QUESTIONS

- Activate prior knowledge by asking students what do they mean by molecular formula of an element.
- After listening to their responses, test their knowledge on the radicals.
- Guide them to write the chemical formula of some compounds.



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MOLECULAR FORMULA

- A Molecular formula of a compound is the symbolic representation of its (one) molecule.
- It shows the number of atoms of each element present in it. The atoms combine in whole numbers to form the molecules.
- For Example: - A molecule of Sulphur Dioxide gas is represented by SO_2 . It indicates that one molecule of SO_2
- contains one atom of sulphur and two atoms of oxygen

WRITING A CHEMICAL FORMULA OF A COMPOUND

- To write the chemical formula, the following steps must be followed.
 1. Write the Symbols
 2. Interchange the valence number
 3. Write the valency of the symbols.
 4. Write the interchanged numbers at the base.
 5. Write the formula of the compound



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For example, the step wise method for writing the formula of **CALCIUM OXIDE** is given below

CALCIUM OXIDE

Step 1: Write the symbols and valencies.

Symbols	
Calcium Ca	Oxide O

Valencies	
Calcium 2 ⁺	Oxide 2 ⁻

Step 2: Ca²⁺ O²⁻

Step 3: Ca²⁺ O²⁻

Step 4: Ca₂O₂

Step 5: Reduce the valency numbers to the lowest ratio, if possible.
∴ the formula is CaO



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OTHER EXAMPLES OF CHEMICAL FORMULA (HOME ASSIGNMENT)

- Similarly, Formulas like Magnesium oxide
- Calcium nitride
- zinc hydroxide
- Aluminium Carbonate written by CRISS-CROSS method.
- Exercise Q3 & Q4



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THANKING YOU

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