

Curiosity: A Conversion Factor That Carries Units

Curiosity Reading | CheAI Research Inc.

Packet ID: g09_u07_w26

Connection: measurement and materials

Reading time: 4 minutes

Molar mass links a counted amount in moles to a measured mass in grams. It is not a universal property number without units: its value comes from the formula and frozen classroom atomic masses. A correct conversion writes a factor so the unwanted unit cancels. Calculator digits do not override the precision of the measured mass.

Think like a chemist

1. Which unit must cancel to convert grams to moles?
2. Why does $\text{Ca}(\text{NO}_3)_2$ require a group count?
3. Why does a coefficient not change molar mass?

Word	Meaning	Packet
molar mass	grams per mole	1–20
conversion factor	unit ratio that equals one	4–12
significant figures	justified calculation digits	17